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Regular Edition

VOL. XC. SEPTEMBER 15, 1906. No. 1603

EDITORIAL SUMMARY: Pages 81-82

The New York and Boston Art Commissions Prove their Mettle—The Evil of Competition Common to Most Walks in Life—Should Jobs go only to those who have "Arrived?"—Death of Edmund R. Willson, Architect—Death of T. O. Langerfeldt, Water-Colorist—Warning to those about to use Reinforced-Concrete.

DESIGN AND CHOICE OF MATERIAL..... 83

USE OF BURNED CLAY PRODUCTS IN FIREPROOFING BUILDINGS—III..... 84

A LAY EDITOR ON ARCHITECTURAL COMPETITIONS..... 86

THE ABBEY OF ST. DENIS..... 87

NOTES AND CLIPPINGS..... 88

SOCIETIES, PERSONAL MENTION, BUILDING NEWS, ETC.

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McKinley National Memorial, Canton, O.: Seven Plates—U. S. Court-house and Post-office, Indianapolis, Ind.

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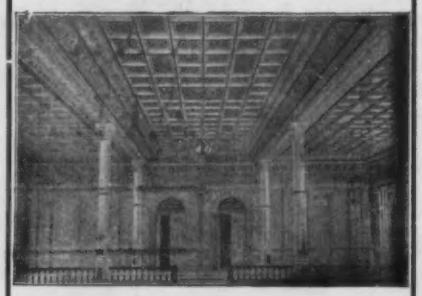

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Alphabetical List of Advertisers

(FOR CLASSIFIED LIST, SEE PAGE 18)

A
Alsen Cement xix
American Air Cleaning Co. v
American Asphaltum & Rubber Co. xiii
American School of Correspondence ... v
American Luxfer Prism Co. xi
American Mason Safety Tread Co. ... xiv
American Rolling Mill Co. xvii
Andrews Co., A. H. xiv
Architect & Contract Reporter ii
Associated Expanded Metal Co. xvi
Atlas Portland Cement Co. ii
Automatic Mail Delivery Co. xiii

B
Barber Asphalt Paving Co. ... e-o-w, xiv
Barret Mfg. Co. xiii
Batchelder & Co., C. H. xix
Berger Mfg. Co. ii
Bird & Sons, F. W. ..... e-o-w, iii
Blome, R. S., Co. xx
Broad Gauge Iron Stall and Vane Wks. xix
Building News xiii
Butcher Polish Co. ..... e-o-w, ix

C
Cairns, Hugh xix
Campbell, Walter M. xiv
Cement Age x
Chicago & Alton Ry. xvii
Chicago & Northwestern Ry. xvi
Clinton Wire Cloth Co. ..... o-a m, xix
Cummings Filter Co. xiv
Cutler Mfg. Co. ii

D
Dadmun, Leon B. xix
Deane, E. Eldon xiv
Dixon Crucible Co., Jos. ix

E
Elevator Supply and Repair Co. ii
Elston, A. A. xix
Emmel, Charles ..... e-o-w, xv
Engineering Agency xi
Erickson Electric Equipment Co. ... xix
Expanded Metal and Corrugated Bar Co. ..... e-o-w, vi

F
Favor, Ruhl & Co. ..... e-o-w, xiv
Fire Proof Door Co. ..... e-o-w, iii
Fisher Co., Robert C. ii
Fitzpatrick, F. W. ..... e-o-w, xi
Flanagan & Biedenweg Co. ix
French & Co., Samuel H. ix
Frink, I. P. xi

G
Genasco Roofing Co ..... e-o-w, xii
Gilbreth, Frank B. ..... o-a-m, xii, xiii
Globe Ventilator Co. xviii
Goodyear Tire & Rubber Co. ix
Gorham Mfg. Co. ..... o-a-m, xi
Guastavino Co., R. ..... o-a-m, xiii
Gurney Heater Mfg. Co. xx

H
Hartmann Bros. Mfg. Co. ii
Harvard University iv
Hayes, Geo. viii
Hitchings & Co. ix
Holoplane Glass Co. ..... e-o-w, xi
Huber & Co., H. F. iii

I
Illinois Steel Co. xx
Imperial Expanded Metal Co. xvii

J
Jackson Co., Wm. H. xx
Jenkins Bros. x
Johnson & Co., H. A. xix
Jones, T. W. ..... e-o-w, ix

K
Keasbey & Mattison Co. ..... o-a-m, xii
Kewanee Water Supply Co. xiii
Kinnear Mfg. Co., The ii

L
Lane, John iv
Loomis-Manning Filter Co. xii
Lord & Burnham Co. viii

M
Mass. Institute of Technology iv
Miller & Bro., James A. viii
Morrill & Whiton Construction Co. . xix
Morse Co., F. E. iv
Moss, Chas. E. xix
Mullins Co., W. L. ..... e-o-w, xix
Mycenian Marble Co. ..... o-a-m, x

N
National Fireproofing Co. ..... e-o-w, vii
National Lead Co. ..... e-o-w, xii
Neuchatel Asphalt Co. x
New Jersey Zinc Co. ..... o-a-m, ix
New York Belting & Packing Co., e-o-w, xi
New York Blower Co. xii
Northwestern Terra Cotta Co. e-o-w, iii

O
Okonite Co. (Ltd.) ..... e-o-w, iv
Otis Elevator Co. ii

P
Pennsylvania Rubber Co. iv
Pitt Balance Door Co. ii
Pitt Iron Works, Wm. R. ..... e-o-w, iii
Prometheus Electric Co. xiii

R
Raymond Concrete Pile Co. iii
Rider-Ericsson Engine Co. xvi

S
Samson Cordage Works ..... e-o-w, x
Silver Lake Co. xix
Simpson Bros. Corporation xix
Sleep, Elliott & King Co. xix
Smith Co., H. B. ..... e-o-w, xvi
Society of Beaux-Arts Architects ... iv
Soltmann, E. G. xvii
Spaulding Print Paper Co. xix
Standard Fire-escape & Mfg. Co. xix
Stanley Works ix
Sturtevant Co., B. F. xi

T
Taylor, J. W. xiv
Technical Supply Co. xv
Thomas & Smith xx
Thorn Co., J. S. ..... e-o-w, ix
Troy Laundry Machinery Co. xx
Trussed Concrete Steel Co. vii
Turner Construction Co. vi

U
U. S. Mineral Wool Co. viii
University of Illinois iv
University of Michigan iv
University of Pennsylvania iv

V
Vaile & Young x
Van Dort & Co., G. B. xii

W
Wagenhorst & Co., J. H. xiv
Washington University iv
Wight, W. N., & Co. vi
Winslow Bros. Co., The xv
Wirt, F. B. xiv
Wolff Mfg. Co. ..... o-a-m, xiii

Y
Yale & Towne Mfg. Co. x

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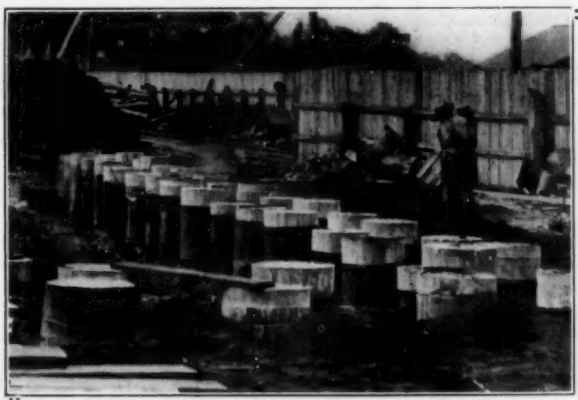

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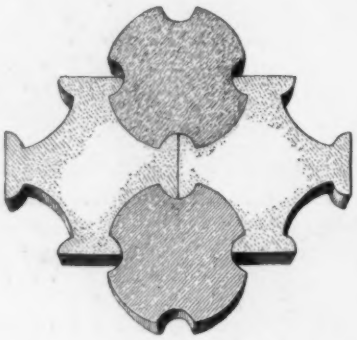

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PERSONAL MENTION

ST. JOSEPH, MO.—The well-known architectural firm of Alfred Meier & Son will hereafter be known under the style of Meier, Hartman & Meier, architects. Mr. P. F. Hartman, the new member of the firm, formerly of St. Louis, Mo., has been actively engaged in the profession for a period of fifteen years. The new firm will retain its present offices, 29 and 30 Ballinger Building.

NORFOLK, VA.—Mr. C. T. Holtzclaw, architect, of Hampton, formerly of the firm of Holtzclaw & Brother, has filed a petition in voluntary bankruptcy in the Federal Court here, asking relief from firm debts of $20,114.55, of which $19,904.55 are unsecured claims. The petitioner places his assets at $175, all claimed as exempt.

NOTES AND CLIPPINGS.

THE ELIMINATION OF THE GRADE CROSSING.—In a letter to the New York *Times*, Mr. Joseph S. Woods says: It is high time the State should adopt a comprehensive plan for the elimination of these grade crossings. There are about 8,600 of them in the State of New York. It would cost all told about $200,000,000 to get rid of

them. Of this the State's share would be $50,000,000. It was not until 1898 that this State passed an act to provide for their elimination. By it one-half of the expense is borne by the railroad company, one-fourth by the State, and one-fourth by the municipality in which the crossing exists. During the last eight years, up to March 1, 1906, the State of New York paid out, as its share of the expense of eliminating railroad grade crossings, the small sum of $322,197.32. The total number of such grade crossings eliminated since 1898 is only 65. In the same period of time the State of Massachusetts, with only one-sixth the area and one-third as many railroad grade crossings, paid out $6,616,221.40 for its share of their elimination. Last year 96 persons were killed and 76 injured at railroad grade crossings in this State. In 1904, 105 were killed and 84 injured. New York is about to spend $50,000,000 for its share of the so-called good roads. Is there any part of any road which needs improving more than that where there is a railroad grade crossing? If it be good policy for the State to pay out $50,000,000 for making good roads, is it not good policy for it to pay out as much for its share of the expense of eliminating railroad grade crossings?

More About the Divining-rod.—Though Herr von Bülow can find water with a divining-rod, he is reported to have said he could not detect water carried through pipes. Herr Franzius consequently made experiments in this direction and found that the rod twisted in his hands when he crossed over a conduit or walked up stream, but that it was unaffected when he walked down stream or when the mouth of the pipe was blocked up and the water ceased to flow.—*The Builder.*

The Heaving of Piles by Frost.—A curious instance of the heaving of piles in frozen ground is recorded by the *Engineering News* of New York. This movement of the piles was experienced at a trestle viaduct about 2,200 feet long, with a maximum height of 80 feet, built across a peat swamp to the west of Winnipeg, on the Grand Trunk Pacific Railway. The structure is a framed trestle, with seven piles under each bent, and the piles were driven to an average depth of 30 feet, the first 10 feet being soft peat and the underlying material a mixture of sand and clay. The penetration during the last blows of the pile-driver was only 1 inch or 2 inches; a 2,200-pound hammer was used, having a maximum drop of 40 feet. The three center piles were spaced 2 feet 6 inches, center to center, and capped with a 12-inch by 12-inch sill, 10 feet long; beyond these on each side were two piles spaced 5 feet and 11 feet apart, supporting the inner and outer batter posts on a long sill. When the ground became frozen, the outside piles in some of the groups were raised about 3 inches and 4 inches, but those in the center showed no disturbance whatever. The heaving occurred only at bents where the superstructure had not been erected, but was framed and lying on the bents ready for raising, and the sills were simply bolted to the piles. Instead of cutting the piles off, as is usually done, they were driven home with a few light blows of the hammer, but even heavy blows failed to increase the penetration, thus showing that the piles were simply restored to their original position.

An Egyptian Cure for Sunstroke.—Travelers in Egypt must often have noticed a curious scar upon the foreheads of the natives, though perhaps they have not discovered its significance. It is a sign that the man who bears it has had, or has fancied that he had, sunstroke. The formula for the malady is curious and typically Eastern. The victim must be laid full length upon the ground and massaged from the feet upward. The sunstroke is some form of evil genius which must be squeezed and forced into one spot. This the massage accomplishes. When the masseur has done his best to this end, and assumes that the virus of the enemy is all concentrated in the forehead of the patient, then the teeth of the operator are applied to the infected area, and a piece of the flesh of the forehead bitten out. The strange thing is that the treatment is said to be invariably efficacious. It may be faith cure, or it may be that the sunstroke itself was imaginary—the cure is sure.—*London Standard.*

Oldest Calendar Date.—Prof. James H. Breasted, the Egyptologist of the University of Chicago, announces in an article in the *Biblical World* that the oldest fixed date in history is 4241 B. C. In that year, he says, the calendar was established, the year beginning on what would now be July 19. Consequently the calendar now in use was 6,147 years old last month. The professor arrived at these conclusions during his long exploration trip to the Nile Valley, when he compared the astronomical dates in the old and middle kingdoms of Egypt.

Portland, a Year After.—In July, 1905, the Lewis and Clark Fair was in the height of its glory. Our streets were thronged with thousands of visitors from all over the United States. Every hotel and lodging house was crowded, and new buildings were going up on every hand. This unparalleled activity, while pleasing in the extreme, could not disperse the gloom from a large number of pessimists, who feared the "slump after the fair." But more than a year has passed since the fair was at the zenith of its success, and nine months have passed since its doors were closed forever, and what is the result? Bank clearings for July, 1906, more than $4,300,000 greater than for the same month last year, and building permits for May, June, and July—the months when, last year, building was at its height—this year $1,368,000 greater than for the same three months in 1905. These glowing facts may be distressing for the pessimists, but it should be remembered that Portland has been no place for a pessimist for the past two years.—*Portland Oregonian.*

British Losses in San Francisco.—On August 9 the *Times'* insurance expert figures that the British companies, including the subsidiary American companies owned by them, lost £9,225,167 in the San Francisco disaster.

San Luis Rey, Cal., to Be Restored.—The old mission, San Luis Rey, located down near the Mexican line, in the State of California, far from the beaten track of civilization, is to be restored on a more extensive scale than any similar establishment in the historic chain that extends along the California coast. The Rev. Joseph J. O'Keefe, O. F. M., the pioneer Franciscan and one of the best-known priests in California, is in charge of the work, and his plans for the preservation and improvement, when carried to completion, will undoubtedly cause the picturesque structure to rank high as a place of interest and charm.

The scope of the project is elaborate and includes the erection of a group of buildings which will form a great quadrangle. In this quadrangle the stately church, which has survived the wreck of what was once the lordliest institution in California, will form the eastern side. The western side will be 173 feet long, and the buildings on the southern and northern sides of the patio will correspond to each other. The latter structure is already nearing completion. It is 186 feet long and two stories in height. This edifice will be used as a monastery, and contains forty-five rooms, neatly plastered and well lighted. The floor of this and the other new buildings on the quadrangle will be of cement, the second story having wooden flooring. All the walls will be of adobe.

In his plans for the future, as in the work that has been thus far accomplished, Father O'Keefe is his own architect and builder. Two Franciscan lay brothers and several Mexican laborers form a small corps of assistants.

Mission San Luis Rey is in San Diego County, ninety miles south of Los Angeles. The greater part of the journey must be made via the Santa Fé Railway to Oceanside, and the remaining five miles traversed in carriage or wagon over an undulating country road. The venerable church, which has so bravely withstood the ravages of time and the elements, rears its scarred walls to the sunny sky in the midst of a picturesque valley. And here in the old days dwelt 5,000 Indians.

No other mission in the whole length and breadth of California could boast of greater wealth or more romantic history than this which was dedicated to San Luis, Rey de Francia, or St. Luis, King of France. It was the eighteenth mission in the chain and constituted the connecting link between San Diego and San Juan Capistrano. It dates back 109 years, although the site was discovered ten years before that time by the first land expedition under the leadership of Governor Portola and the sainted Padre Junipero Serra.—*Mexican Herald.*

Connecticut's Stone Fences Disappearing.—Connecticut's stone fences are doomed and before many years these picturesque features of the rural sections of the State will be but a memory. The popularity of stone houses and the increase in the number of summer homes have led to the utilization of the stone fences for building purposes. In place of the stone fences are miles of wire fences. When New Yorkers

began to seek the country in the summer time, Connecticut became dotted with an ever-increasing number of costly cottages, for the construction of which stone was the best and most durable material. Then it was that the builders turned to the fences, from which stone could be obtained without the labor of quarrying. Contractors went about buying up stone fences, and farmers, eager to realize on this crop that their ancestors had tilled for them, found that even after new wire fences had been put up they had a good profit from the sale of the stones. Farmers like wire fences, too, because they take up practically no room and can be kept clean, whereas the stone fences were fringed by weeds and bushes that could never be mowed or ploughed out. In any other State the wire fences would not be unattractive, but here they seem strangely out of place, and to lovers of old-time Connecticut the absence of the stone fences will be a loss that the handsome modern country places cannot compensate for.—*New York Sun.*

Tubbing in the Eighteenth Century.—The most curious thing to be noted about the letters of Mrs. Elizabeth Montagu, one of the most noted of the eighteenth century blue-stockings, is that they should, after all, reveal so little of the manners and customs of her time. It is only occasionally that we come upon such odd glimpses as that of the Duchess of Portland's stately mansion at Bulstrode, where, being ordered by her doctor to take a bath, Elizabeth "suffered great disappointment" on finding the bathing tubs so out of order that they would not hold water for what she calls "a souze." It appears that it was the fashion to wear a special costume for a bath, even behind locked doors, for Elizabeth laments that her bathing-dress was at home, and that when the bath-tubs are ready she must extemporize a costume.—*New York Tribune*

Preservation of the Eiffel Tower.—Under the original agreement the Eiffel Tower is to become the property of the city of Paris in 1910. In some quarters the opinion prevails that the tower should then be pulled down. Scientists object that it is of great use as a meteorological station and that as a lightning-rod it protects a great part of Paris. Moreover, the military authorities find the structure useful as a station for wireless telegraphy. For all these reasons the city of Paris has decided to extend the agreement to 1915.—*Echo de Paris.*

A Remarkable Schoolhouse.—Perhaps the strangest material ever used in building a school is that found cheapest in the town of New England, N. D. The structure is built entirely of agates. Of course we do not mean such agates as small boys use in playing marbles. It is wholly of petrified wood, which there is very plentiful upon the prairies. It is said that the material has been put together in most artistic fashion, so as to bring out its beauty, and that "when the sun shines the building glistens like crystal." Where the schoolhouse is so hard probably the hardest of lessons will by contrast seem not really hard at all. But, on the other hand, with so bright a schoolhouse how dull must the brightest scholars appear!—*St. Nicholas.*

Stilts for Building Mechanics.—Mr. Kelman, son of a late master-plasterer at Peterhead, has, says the *Fraserburgh Herald*, invented a species of stilts, mounted on which the plasterer, plumber, painter, joiner, and paperhanger can pursue their work at varying heights, while saving the labor, expense, and trouble of flitting about, putting up and taking down a scaffold. The stilts are bamboo poles of four feet six inches and six feet high. They are fitted with thick wooden standards at the bottom end, by means of which the operator is made steady on his extended "pins," and elevation is secured by means of further thick wooden soles which can be adjusted on the poles at the required height. Straps over the ankle and the toe fix the foot to these soles, and a further strap attached to a cast-iron hasp-clasp fastens the leg to the stilt at a point under the knee.—*Building News.*

The Western Pacific Railroad Tunnels.—The Western Pacific is perfecting plans to enter California, and when the road is completed it will be one of the greatest railroad-engineering feats in modern times. The engineers in charge have instructions to keep one object in view: the straightest line with the least grade. To accomplish this forty-five tunnels will be bored in eastern California between Oroville and Beckwith Pass. Instead of going around mountains the Western Pacific is going through them. The longest of the tunnels is that at the head of Spring Garden, twelve miles east of Quincy. This is cut under the ridge dividing the north and middle forks of the Feather River. It will be more than 7,000 feet in length when completed. The next longest tunnel on the road will be the one under Beckwith Pass. This will be over 4,000 feet in length, and it is being bored at both ends. The third tunnel will probably be the most difficult engineering feat of all, as it will be cut through solid rock for a distance of 1,200 feet. This will be north of Quincy on Spanish Creek.—*Exchange.*

BUILDING NEWS.

(The editors greatly desire to receive information from the smaller and outlying towns as well as from the larger cities.)

Atlanta, Ga.—The local lodges of Masons will erect a temple at a cost of $200,000. Morgan & Dillon are the architects.

Baltimore, Md.—The building committee, Isaac Strouse, chairman, northeast corner Lombard and Paca Streets, of the Hebrew Hospital and Asylum, Monument Street and Hopkins Avenue, has commissioned Louis Levi, architect, American Building, Baltimore and South Streets, to prepare plans and specifications for an additional hospital building to cost about $75,000.

Haskell & Barnes, architects, Central Savings Bank Building, are preparing preliminary plans for Ingram Memorial Chapel to be erected at McComas and Oliver Streets by the Church Extension Society of the Methodist Episcopal Church, Bible House, 8 East Fayette Street.

Plans are being prepared, according to reports, by Guy King, of Philadelphia, Pa., for an eight-story reinforced concrete factory, 55x175 feet, to be erected here by Flick Bros. & Co.

Bellefontaine, O.—An election will be held, September 17, to vote on issue of $60,000 bonds for erecting a high school.

Beloit, Wis.—It is reported from Chicago that Fairbanks, Morse & Co. are negotiating for the lease now held by the Studebakers on Sixteenth Street, and will build a plant costing approximately $400,000.

Bethlehem, Pa.—Watson & Huckel, architects, 1211 Walnut Street, Philadelphia, Pa., have plans under way for a large stone church to be erected for the Lutheran Congregation in this city.

Bloomington, Ill.—According to reports, a new brewery will be erected here by a company recently incorporated with a capital stock of $175,000. Attorney John Stapleton and William Courey are the incorporators.

Boston, Mass.—The Young Men's Christian Association has purchased the property of the Boston Athenæum, at Newbury and Arlington Streets, as a site for their new building.

Bowling Green, Mo.—The erection of a court house at Bowling Green, to cost $75,000, is reported under consideration.

Briar Cliff Manor, N. Y.—Guy King, architect, Philadelphia, Pa., has plans under way for a large addition to Briar Cliff Lodge at Briar Cliff Manor, for W. W. Law. The structure will be four stories high, of reinforced concrete, measuring 90x425 feet. It will contain 275 rooms. A large rotunda, dining rooms, library, exchange and office will be located on the first floor. The cost will be $150,000.

Bristol, R. I.—Work has been started on the erection of the new high school building on Bradford Street, Bristol. The building will be of brick and stone, two stories high, 160x80 feet. Approximate cost $200,000. Cooper & Bailey, 60 Congress Street, Boston, architects. Norcross Bros. Co., Tremont Building, Boston, contractors. No sub-contracts have been let.

Bristol, Tenn.—It is reported that Henry Roberts is planning to build a six-story office building of steel frame, stone and pressed brick.

Reports state that several new buildings are to be erected at Fort Hamilton at a cost of $350,000. Ten sets of quarters for bachelor offices in one building and two double barracks, barracks for a torpedo company, administration building, hospital, guard-house, bakery and machine shop.

The Army & Navy branch of the Y. M. C. A. will also erect a $50,000 building.

Brooklyn, N. Y.—Herts & Tallant, of 32 East Twenty-eighth Street, Manhattan, are now taking figures on the general contract for the new Brooklyn Academy of Music, which is to be erected on Lafayette Avenue, extending from Ashland Place to St. Felix Street, Brooklyn. As planned, it will contain an auditorium with a seating capacity equal to the Metropolitan Opera House. Its concert hall will seat 1,500, and measure 40x125 feet. It will also contain a large lecture hall and classrooms, which will be used by the Brooklyn Institute of Arts and Sciences.

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Buffalo, N. Y.—The New York Central Railroad Company has filed plans for a freight house and office building to be erected here. Estimated cost, $50,000. D. L. Sommerville, Buffalo, is Division Engineer.

Butte, Mont.—The County Commissioners and the School Board, it is reported, are considering the erection of an industrial school, to cost about $40,000.

Plans have been prepared for a four-story annex to the Hennessy Building at Main and Granite Streets. Cost, $100,000. Adjoining the new structure will be another four-story building, also for the use of the Hennessy Company, to cost $40,000. W. A. O'Brien, architect.

A permit has been issued for the erection of a bank building for the State Savings Bank. It is to be a steel, stone and brick building. Estimated cost, $250,000.

Cedar Rapids, Iowa.—Bartlett & Kling received the contract for a five-story warehouse for the Rock Island Railway. Cost, $60,000. It will be of brick, with reinforced concrete floors and roof.

Chattanooga, Tenn.—The Chattanooga Hotel Company has accepted the plans for an eleven-story hotel to be erected at a cost of over $1,000,000.

The members of the Y. M. C. A., it is reported, are contemplating the erection of a gymnasium to cost about $40,000.

Chicago, Ill.—Plans are being drawn for a hotel to be erected between Michigan and Wabash Avenues, south of the Auditorium. It is to have nine stories.

The Calumet Club will erect a $300,000 addition to their clubhouse on Michigan Boulevard.

President Brundage, of the County Board, it is stated, has directed County Architect Huehl to prepare plans for the Detention Home for Dependent and Delinquent Children, which is to be erected on Ewing Street at a cost of about $75,000.

Fifty thousand dollars has been offered to the city with which to erect a school for the deaf and dumb, the city to provide a site.

Jacob Kesner, it is stated, has been granted a permit to erect the municipal court building at 148 Michigan Avenue, at a cost of $425,000.

Negotiations have been nearly completed for the erection of a building at Franklin and Congress Streets, to cost about $400,000. It is to be a ten-story steel building. It is to be erected by the Lamax Estate for Kohn Bros.

James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive sealed proposals until 3 o'clock P. M., September 20, for miscellaneous repairs to be made in the post office, Chicago, in accordance with drawings and specification, copies of which may be had at his office or at the office of the Inspector of Public Buildings, Post Office, Chicago.

Architect S. N. Crowen, Borland Building, is preparing plans for and will take figures in about a week on an apartemnt building to be erected on 96x202 feet of ground at the southwest corner of Lake View Avenue and Surf Street for William Remy. It will be three-story, have stone fronts, elaborate interior finish in mahogany, steam heat, wiring for electric light, marble and mosaic work, all the latest improvements, and cost $85,000.

The American Snuff Company has had plans made by Richard E. Schmidt, architect, 172 Washington Street, for a four-story factory at 1028-1032 Colorado Avenue. It will be 63x335 feet, and will cost $100,000.

Chisholm, Minn.—Reports state that a $60,000 high school will be erected.

Cincinnati, Ohio.—Plans have been prepared by G. W. Drach, architect, Union Trust Building, Fourth and Walnut Streets, Cincinnati, for the erection of an addition to the Woodward High School building, at a cost of about $225,000.

Elzner & Anderson, Fourth and Vine Streets, have prepared plans for a brick school building for the Board of Education. Henry Klein, superintendent of building, 9 Main Street. Cost, $180,000.

Clarksville, Tenn.—Board of Education will open bids September 26 for furnishing all materials and labor necessary to erect and finish complete proposed high school building. Form of proposal and full particulars can be had from board or from J. W. Gaddis, architect, Vincennes, Ind. Usual rights reserved; Prof. Perry L. Harned, corresponding secretary.

Cleveland, O.—T. M. Swetland, it is stated, intends erecting, in the Spring, a ten or twelve-story building on East Ninth Street.

A site has been leased by the American Savings Bank Company for the erection of a new flatiron building to be located at Prospect Avenue and Huron Road. The building will not be erected by the bank, but by the Flatiron Building Company, recently organized. Tobias Epstein, president. Cost from $100,000 to $150,000.

Edmund M. Wheelwright, Boston, Mass., has been selected as consulting architect for the new Museum of Fine Arts Building, to be erected at Cleveland.

Reports state that a school building is to be erected here at a cost of $100,000.

It is reported that a new home for the aged will be erected on Page Avenue, to be known as the McGreagor Memorial Home. Estimated cost, $75,000.

The revised plans for the Hippodrome Building have been completed by the architects. Knox & Elliot, architects, Rockefeller Building. The plans call for a twelve-story building.

Clinton, Iowa.—A new building will be erected here by the Iowa Telephone Company at a cost of $150,000.

Columbus, O.—It is stated that the Trustees of the State Institute for the Deaf and Dumb have decided to ask new bids for erecting the hospital, as the bids recently exceeded the $30,000 available.

Cordele, Ga.—City has voted affirmatively as to the proposed $80,000 bond issue for the erection of court-house and jail. Address the Mayor.

Corliss, Wis.—The Sisters of St. Dominic, Racine, Wis., have purchased a 60-acre farm at Corliss and will erect thereon a $60,000 school building.

Denison, Tex.—Arrangements are reported as being completed for the erection of the union passenger station to be built by the Missouri, Kansas & Texas for its own use and other railways entering Denison. About $150,000 will be expended. F. W. Bailey is superintendent of bridges and buildings.

Denver, Colo.—The contract for the erection of the St. Francis four-story apartment hotel has been awarded to Alexander Mathers, Continental Building. Cost, $100,000. F. E. Edbrooke, 510 Opera House Block, is the architect.

Detroit, Mich.—Architects Grylls & Gies, 510 Wayne County Savings Bank, have prepared plans and are ready to take figures for a double store building for F. Hassig, 1151 Gratiot Avenue. To be a three-story and basement, 43x78 feet, of pressed brick, Bedford limestone trimmings, structural steel, galvanized iron cornice, metal skylights, furnaces, combination light-

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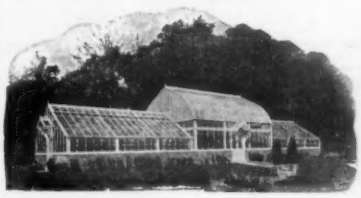

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ing, open plumbing, plate glass, hard plaster, etc.

The Independent Brewing Company will erect a new building on Springwells Avenue, near the Michigan Central Railroad, in West Detroit. The plant will cost $100,000.

D. M. Ferry, Sr., is to erect a building for the firm of Newcomb & Endicott, at an estimated cost of $400,000.

ELIZABETH, N. J.—Plans have been prepared by Cramp & Co., Philadelphia, Pa., for the construction of a group of factory buildings, including an erecting shop, woodworking house, storehouse, boiler shop, foundry and power house, for the Hutchins Company. They will be of brick and terra-cotta construction, and cost about $250,000.

ELLAVILLE, GA.—The Bank of Southwestern Georgia, Amsterdam, Ga., it is reported, is planning to erect bank building.

EXSHAW, ALTA.—The Western Canada Cement Company will erect a cement factory here to cost $1,000,000. There will be six rotary kilns.

FORT DODGE, IOWA.—Frank W. Griffith, architect, has plans for a plaster mill for the American Independent Gypsum Company. It will be frame with concrete foundation, boilers, cementing, engines, fire-brick, iron beams and columns, skylights, ventilators, etc. Cost, $50,000.

FT. HAMILTON (P. O. Brooklyn), N. Y.—It is reported that the Army & Navy Branch of the Y. M. C. A. intends erecting a $50,000 building here.

FT. WORTH, TEX.—Buchanan & Gilder, it is reported, have secured the contract to erect a seven-story building at Houston and Ninth Streets, for Dr. Bacon Saunders, at a cost of about $100,000.

FRANKLIN, N. C.—Macon County Bank, John U. Mann, secretary, will erect bank building three stories high; brick or concrete blocks. Proposals for plans and specifications and for erection are invited; bank and stores on first floor; offices above.

FREMONT, NEB.—M. Haven and H. J. Lee, Lincoln, Neb., have the plans drawn for a new brick block in Fremont. The structure will be three stories high and will be made very modern.

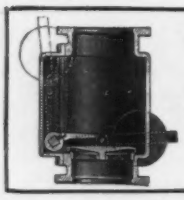
GOSHEN, IND.—The Commissioners of Elkhart County are preparing to ask for bids for the remodeling of the court-house. The estimated cost is $75,000. The plans practically call for a new court-house.

GRAFTON, W. VA.—The Lodge of Elks, No. 308, will erect a $50,000 building. Address the secretary for information.

GRAND ISLAND, NEB.—H. A. Edwards, secretary of the Board of Education, will receive bids until September 17 for the erection of a $50,000 High-school building, in accordance with plans prepared by Architect F. A. Heninger, 705 New York Life Building, Omaha. Certified check, $1,000.

GRANITE CITY, ILL.—The First Presbyterian Church will erect an edifice, 55x90 feet, at D and Twenty-second Streets. It will be built of vitrified brick and Carthage stone. Cost, $35,000. Dr. E. M. Page, of Collinsville, Ill., is interested.

HALIFAX, N. S.—A bank building is to be erected in this city. It is to be a four-story



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building, 40x81 feet. Estimated cost, $100,000. Albert Kahn is the architect.

Hamilton, O.—The Directors of the Y. M. C. A., it is stated, have ordered plans prepared for a concrete Y. M. C. A. building, to cost about $150,000.

Harrisburgh, Pa.—Plans are being prepared for a new telephone exchange and office building, to be erected by the Pennsylvania Telephone Co., L. H. Kinnard, manager; three-story stone and steel fireproof. Estimated cost, $50,000.

Hartford, Conn.—Architect W. D. Johnson will have plans completed in about three weeks for the addition to church for Memorial Baptist Church at Hartford. The addition will be of brick and brownstone, 30x75 feet, slate roof. Leaded glass, steel trusses, gas and electric light, etc.

Hazleton, Pa.—It is stated that plans are being prepared by Guy King, of Philadelphia, for a two-story, 72x250 feet, reinforced-concrete terminal, to be erected here by the Lehigh Traction Co., and for a three-story powerhouse, 60x125 feet, the cost of both to be about $300,000.

Henderson, Ky.—The city will hold an election in November to vote on issuing $125,000 bonds for erection of court-house. Address the Mayor.

Houston, Tex.—Hyman Levy, J. M. Dorrance, W. E. Chew, and Daniel Ripley have purchased the property at the corner of Main Street and Rush Avenue, and are said to plan the erection thereon of a modern hotel.

Indianapolis, Ind.—The Board of Public Works has invited architects to furnish competitive plans for the new City-hall and Coliseum to cost about $400,000. Bids will be in order as soon as plans are approved.

Frank H. Wheeler has purchased a costly site on Meridian Street and has ordered plans for an elegant residence building. Bids will be invited as soon as plans are completed.

The Philoxeman Lodge, No. 44, I. O. O. F., has purchased a lot on North Meridian Street, Indianapolis, upon which to erect a $75,000 lodge hall. A. W. Gray, M. S. Huey and D. S. Hollingswood, Building Committee.

Ishpeming, Mich.—J. D. Chubb, of Chicago, Ill., it is stated, has been engaged to prepare plans for the High-school to be erected on Division Street, at a cost of $80,000.

Jackson, Tenn.—It is reported that the Tecumseh Tribe, No. 19, Independent Order of Red Men, intends erecting a four-story building, the upper stories to be used for lodge purposes.

Jacksonville, Fla.—It is reported that Courtland Buckman will erect five-story brick office building, 40x100 feet.

Jersey City, N. J.—Doyle & Doak, of Philadelphia, Pa., it is reported, have secured the contract to erect a four-story brick warehouse, 350x50 feet, in Jersey City for the New York Standard Watch Co., at a cost of $65,000.

Kansas City, Mo.—Charles A. Smith, Dwight Building, is preparing plans for the proposed Y. M. C. A. building, to cost about $200,000.

The American Architect and Building News

Vol. XC. SATURDAY, SEPTEMBER 15, 1906. No. 1603.

CONTENTS

SUMMARY 81-82

The New York and Boston Art Commissions Prove Their Mettle—The Evil of Competition Common to Most Walks of Life—Should Jobs Go Only to Those Who Have "Arrived"?—Death of Edmund R. Willson, Architect—Death of T. O. Langerfeldt, Water-colorist—Warning to Those about to Use Reinforced-Concrete.

DESIGN AND CHOICE OF MATERIAL 83

THE USE OF BURNED-CLAY PRODUCTS IN THE FIREPROOFING OF BUILDINGS—III. 84

A LAY EDITOR ON ARCHITECTURAL COMPETITIONS . . . 86

THE ABBEY OF ST. DENIS 87

ILLUSTRATIONS: 87

The McKinley National Memorial, Canton, O.: Seven Plates—U. S. Court-house, etc., Indianapolis, Ind.

Additional: The Wertheim Warehouse, Berlin, Prussia: Three Plates—Evangelical Church, Deutsch-Eylau, Prussia.

NOTES AND CLIPPINGS 88

SOCIETIES, PERSONAL MENTION, ETC.

WHENEVER, as individuals, we are tempted to express amazement at the commonplaceness in design of matters that finally receive the approval of the various art commissions, we, as editors, at once recall that our own work ought, perhaps, to be valued mainly because of our refraining from publishing contributions actually rejected, and hence, we easily maintain a respect for their decisions. All that they, or we, can do, is to accept the best that momentary conditions make accessible, while doing all that can be done to reject the really "impossible." Just now, the Municipal Art Commissioners of both New York and Boston are "under fire," the first because they have had the audacity, in the face of favoring political pressure, to reject the design proposed for the Richmond County court-house, and the second, because they refuse to allow the erection on Boston Common of a, presumably "imposing," memorial to the late Mayor Patrick A. Collins, beloved of all of Irish descent and, to say the truth, respected by all good citizens of Boston. As we have every confidence in the architectural good judgment of "a man named Cook," as he is nominated by the supporters of the court-house design, we have not the slightest question but that the firmness of the architect member of the New York body has spared us the sight of another public building offensive in its misused architectural extravagance. In the other case we feel that the commissioners were absolutely right, for monuments should be allowed a place on Boston Common only when they possess the most unchallengeable permanent public significance, and that can hardly be claimed for a memorial to Mr. Collins. Boston has had many mayors as worthy of public honor as he. They have as many influential, or monied, admirers, and if each is to be honored in turn, the venerable Common would soon put on the air of an Italian "campo-santo." If the mayors must be honored, and if the Common only will serve for the display of their sculptural charms, then the old fence might better be restored, and its posts surmounted with their effigies in bronze, patterned after those little gems of art that make the railing about the Place du Petit Sablon in Brussels so interesting.

IF the criticism of the universal custom of holding architectural competitions, which may be found in another column, is the result of the individual observation of an intelligent lay observer, it is much better worth considering than if it were a mere restatement of the opinion of the last architect with whom the editor of the New York *Evening Post* had chanced to talk. Although the argument could easily be traversed in several directions, it agrees essentially with our own belief that competitions are very far from being the unmitigated evil their opponents would like to have them held. A competition always is a success from the winner's standpoint, and there never was, and probably never will be, a competition so well and fairly managed as not to be declared a failure by some, if not by all, of the defeated contestants. Very much is made by opponents of the system of the vast aggregated cost of the time and labor wasted in a large public competition, as if such waste were peculiar to architectural competition, instead of being the one common element in every field of human endeavor. At this moment the hotels here are full of "buyers" for the fall and winter trade, but the manufacturers who seek to secure them as customers do not think of abandoning their outlays for advertising, catalogues, salaries, commissions and wine suppers, simply because the aggregate outlay for these things by the manufacturers who have not succeeded in satisfying these buyers has been enormous. The aggregate loss of a number of real-estate agents all trying to sell the same piece of property is also large, just as is that caused by the futile manœuvring of many lawyers, each trying to secure the same client. If the lawyer, the manufacturer, the architect, the real-estate broker, object to the burden that bears more or less equally on all laboring men, the remedy is entirely in their own hands. It is wholly by their own volition that they enter competitions; each, if he prefer it, can sit quietly in his office and do only such work as comes to him through and because of his acquired reputation—if he has any.

THE practice of architecture would be delightfully smooth and ladylike, if jobs were handed out by personal selection to those who had "arrived." To be sure, it might be a little difficult for the public to know who had and who had not arrived, and we confess that we do not see how that all-important and significant fact is to be established. Has that man arrived who has practised twenty, thirty, forty years, but never accomplished a decent design? Has he arrived who has built an enormous number of dollars into artistically indifferent structures? Has the jolly good fellow arrived, the man with an endless fund of good stories, and known to be able to talk over to his point of view the most stiff-necked building-committee that was ever brought together? Perhaps. But when these men have joined the majority, where is the second line? Are there to be no more arrivals? The

Entered at the Post-Office at New York as second-class matter.

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doctrine of direct appointment is, at least, as absurd as the theory of competitions. The way direct appointment is likely to work is shown by the case of the Richmond County court-house, mentioned elsewhere, for, of course, it is predetermined that such appointments cannot be intrusted to any architect or any advisory body of architects, for is it not the voice of clamor that no architect, or jury of architects, ever succeeds in fairly assessing the merits of competitive designs? How could they, then, possibly make a direct appointment that would satisfy more than the one man who gets the job? Does not the least satisfactory of competitions do as much as this? It always pleases the winner. Until the millennium has arrived, we are convinced that there is nothing so fair and satisfactory to the promoter, the public and the architect as the "compound" competition, as we have styled it.

WE would like to speak with the most delicate sympathy and feeling of the death of Edmund R. Willson, of Providence, R. I., for, to admirable qualities of mind, and a very real capacity as the creator of architectural designs of great merit, he added the charm of a very lovable personality. Born at Salem, Mass., in 1856, Mr. Wilson was able to take profitable advantage of the educational opportunities offered by Harvard College, the Institute of Technology and the École des Beaux-Arts, and for this reason alone deserved a place amongst the élite of the profession, and his performance later fully justifies his inclusion in such category. A year after his return from Paris he was made the junior partner of Messrs. Stone & Carpenter, of Providence, whose already enviable reputation he has done much to enhance during the last twenty-five years, for, owing to his facility as a draughtsman and the sobriety and delicacy of his artistic perception, his older partners soon acquired the feeling that an unusual share of the active designing might safely be left to his conscientious treatment. It would not be fair to his surviving partners to ascribe to him all, or even the main part of the credit for the many excellent designs which the firm has carried out in recent years, but they will gladly, we believe, subscribe to the statement that his influence in the firm's work has been paramount.

THIRTY years ago the New York or Boston architect audacious enough to be willing and affluent enough to be able to engage Theodore O. Langerfeldt to render in water-color a competition-perspective was quite generally believed to have secured, by reason of so doing, an infrangible lien on the award. Compared with prices paid in recent days Langerfeldt's charges were quite modest, but for those remoter and simpler times they were large, and, as he was always well employed, it became an accepted belief that he was rapidly accumulating a substantial capital. We sincerely trust that this was the case, for we have just learned that the unfortunate man has at length died, after an illness of ten years' duration. Not infrequently, Boston architects of late years have asked one another what had become of Langerfeldt, but no one could answer, and it did not seem to be any one's business to look him up and find out what was the matter. We have no good ground for supposing that he was not properly and tenderly cared for by some one, but there is a chance that he may have suffered through the negligence and carelessness of the profession at large. It may seem unjustifiable to give voice to such an assumption in a concrete case, and we do it only that attention may be drawn sharply to a common oversight. Architects and their associated helpers of one kind or another are "disappearing" constantly: it is generally known that they have not died, and so it is assumed that they have moved elsewhere, or have retired from business with a competence, whereas the real truth is that they have slunk away to some shabby hole to drag out in illness the last days of a broken and defeated career. This should not be allowed, and it seems to us it should be part of the routine work of the architectural societies everywhere to call the roll, as it were, every year or so, for the sake of making sure that no fellow-member or fellow-professional was suffering from hardships that a willing coöperation could so easily alleviate.

AT his best, Langerfeldt, as a water-colorist of architectural subjects, was superior to all contemporary—yes, even to all present—workers in his special field, while, as a water-color artist pure and simple, his work generally merited attention, and often won applause. Whenever he was able to accumulate enough landscape sketches to make it worth while to hold an exhibition, it rarely happened that the product of his brush was not snapped up by eager collectors, in spite of a certain hardness and particularity of treatment which is almost inevitably acquired by architectural water-colorists, through being obliged to force the detail of their drawings. His technique was excellent, and, as a rule, he eschewed body color. He was by birth a Hanoverian, having been born in Bruckeburg in 1840, emigrating to this country when he was sixteen years of age.

IT is beyond question that American architects are preparing to indulge in a "veritable orgie" of reinforced-concrete building, and to many a man who now has the idea of following this fashion we recommend a quiet consideration of *Punch's* famous advice. Building with concrete, whether reinforced or not, is an undertaking not to be attempted rashly, but prayerfully, and the petition for salvation should never be so iterant as when centres are about to be struck. Two fatal accidents within ten days —one at Elyria, O., the other at Mineola, L.I.—show once more the celerity with which a concrete building can dissolve. To argue that the automobile must be abolished, because, daily, the innocents are being slaughtered here, there and everywhere by speed-maniacs, would be as sensible as to urge legislation against the use of concrete. Properly handled, concrete and the automobile are potent factors in legitimate progress. But the architect who allows himself to use reinforced-concrete without having given to the material and methods such serious study as will justify his belief that he has actually mastered them, the architect, that is, who is willing to "take chances" with the lives of mechanics and the capital of his employer, should be held entitled to full membership in the criminal classes.

DESIGN AND THE CHOICE OF MATERIAL.

WHAT would be thought of a goldsmith who labored long and lovingly at a hoped-for masterpiece, and then left it for the decision of the purchaser whether the work should be used as a setting for brilliants, pearls, or jade? Or, to give a more common-place instance, should we expect a woman to choose a pattern for a gown, and then leave to the determination of cost and expediency whether the material should be silk, lawn, or calico? Such examples as these of the utter disregard of congruity between design and material are almost unthinkable. But, every day, architects of the highest rank and of the utmost refinement of taste are called upon to confront just such a condition. They furnish a design for some great building that might be their masterpiece, and serve to keep their names alive in the annals of their art. The disign is approved, and calls out delighted comment. Then it is handed over to the specification-writers, and the estimators are called upon to furnish "alternative bids" in granite, marble, or limestone. The man who gives the commission, or the building-committee, if it be a public structure, decides by the item of cost, the time-limit of construction, or even through "wire-pulling" and "influence," which material shall be used to embody the architect's conception. No one would deny that the architect's opinions sometime carry great weight, and that a few builders (using this term to designate those for whom the structures are to be erected) are guided by considerations of art and fitness. But still dollars and cents and days and weeks play an extremely important part in all building operations. Hardly a day goes by without contributing an instance of some notable building, originally contemplated in one material, being changed to another through influences of expediency rather than congruity. That American architecture has reached a high plane under so manifest a drawback is surprising. It is certain, however, that our architects will never show the full fruition of their genius until they are freed from this incubus; until they are allowed absolute discretion in the adaptation of design to material.

This is not intended in any way as a plea for the use of the more expensive materials of construction. No architect need be hampered by any fair limit of cost. But he should not be led to design for marble, and find himself interpreted in limestone. Nor should he be tempted to display the exuberance of his fancy in decorations fittingly to be carved in a free-working stone, only to have his creations afterwards marred by an attempt to render them in hard, unfeeling granite. Nowhere can better materials of construction be found than in the United States. We have building granites, marbles, limestones and sandstones that cannot be excelled anywhere. There is no design that cannot be fittingly interpreted, providing that the architect adapts the design and ornamentation to the limitations of a single variety of stone. To ask him to put the material wholly out of mind, and to make his design flexible enough to stretch equally well to any stone, is rank philistinism. It is the extreme limit of "bargain-hunting." Unfortunately, the National Government, so progressive in many ways, is the chief offender. States, counties, and municipalities follow close behind, and rarely miss an opportunity to "shop around" for bargains in stone.

How much the artistic effect of the great buildings of all time depends upon the exquisite adaptation of material to design is familiar to every student of architecture. We may be sure that the happy combination was not secured by chance, and that the buildings were not conceived and planned in ignorance of the structural material that was to be used. Does anyone believe that those who reared the Parthenon would have wrought in the same fashion if granite or sandstone had been the only quarry product at hand? We may go even farther, and ask to what extent the architectural art of the ancient world was inspired and modified by the nature of the building material that was available. It is a fruitful subject for investigation. Greek and Egyptian architecture and sculpture are as far apart as the poles. We are taught that this is because of the nature of the people, the state of their civilization, their religious beliefs, their philosophy of life, etc. But has there not been an ignoring of physical conditions? The Greeks wrought in free-working stone, and had the brilliant marbles of Pentelicus, Paros, Thasos and Naxos to call out their most delicate fancies. The Egyptians, on the contrary, worked largely in the sombre and intractable granites, syenites, and porphyries. Who can tell what modifications there would have been in the architectural styles of each of these peoples if there had simply been a substitution of the rock formations of one country for those of the other?

In a general way, there is a widespread recognition of the fitness of various stones for certain purposes. The judgment of the ages has fixed upon granite for structures in which the key-note is solidity, strength and dignity. Marble is the material necessary to carry out the Classical style in its purity, while any form of light-colored freestone is suitable for highly decorated and flamboyant architecture. Every architect naturally seeks to work within these bounds and limitations, unless he is hampered by the "alternative bid" system. But it is when he goes deeper than these general principles, and gives close and detailed study to the capabilities of every variety of stone, that the architect secures the most perfect result in the carrying out of his designs. He recognizes that half a dozen qualities besides mere manual ease in carving, have an important bearing on the finished ornamental work. He rejects a hard, tough granite for a façade requiring a mass of delicate carving, not only because the cost of cutting would be prohibitive, but also because the nature of the stone is such that, even if the work were done, the effect would be wholly unsatisfactory. The qualities in a stone that must be taken into consideration in judging its adaptability for particular work are texture, hardness, life (not durability, but liveliness), and color, the above enumeration being, perhaps, in the order of their importance. The word texture (at first glance seemingly inappropriate in this connection, as it comes from the Latin *texere*, to weave), as applied to stone, means the manner in which the various constituent mineral particles are united, and incidentally takes into account the size, shape and nature of the individual particles. No science has a more extensive and confusing terminology than geology. Scores of terms are used to describe the minute variations of rock structure, but it is enough to consider the building stones under the broad classification of crystalline and fragmental. The crystalline structure of the granites and limestones varies almost infinitely. We roughly distinguish these stones as fine, medium and coarse-grained. For the purpose of considering their fitness for architectural use, it is desirable to employ two more scientific terms. A saccharoidal formation is that in which the grains and structure are similar to loaf sugar. This is common in the crystalline limestones classed as marbles. Porphyritic rock is that which consists of a compact or fine crystalline ground-mass, through which are scattered larger crystals. Granite very frequently assumes this formation. It needs no argument to show that the saccharoidal structure is most suitable for work where the *motif* of the carving or decoration is delicacy and grace. On the contrary, these qualities would instantly be sacrificed if an attempt were made to render them in a stone of porphyritic formation. Here the only qualities that can be expressed are strength and solidity, and the decorative features must be conceived along the line of boldness and vigor. To carry the idea still farther, these features of a stone have weight, even in plane, flat surfaces. If a fine-grained, pure, white marble is used for wide, unbroken wall-spaces, and is left in the smooth, sand-rubbed finish so much affected, the result looks like a bit of plaster-work or a confection by a caterer wrought in sugar. This is in large measure obviated if the stone contains the blue veins and cloudings natural to a true marble. These are generally barred out, because there is a craze for "white" buildings. The effect can also be avoided by a tooled finish, but the better way is to make use of a marble of coarse crystallization. In contradiction of this *dictum*, someone may point to the Classical buildings of Greece, in which the fine-grained Pentelican marble was used for large, smooth surfaces. But the Grecian marble has a distinct cream tint, and there is a peculiar translucent quality that we cannot match in any of our stones. Besides, who shall say that it was not a desire to avoid a plaster or sugary effect that led the Classical builders to make so free use of pigments in staining stonework?

Stone of very coarse grain, or of porphyritic formation, does not give any appearance of dull uniformity in unbroken surfaces, and its use is suggested in all such cases, where possible. But it is completely out of place where it is often seen, in buildings made up of small wall-spaces, like narrow window-piers. Here it looks as if shorn of its most vital quality, strength.

The second variety of rock formation to be considered in this connection is the fragmental, as this manifests itself in the granular or oölitic form. The granular structure is that of all the common sandstones. In some of the sedimentary rocks, the grains are so minute, and the texture of the stone so compact, that there is scarcely any appearance of granular structure. Stone of this nature, however, is so rarely used in the building trades that it may be dismissed from further consideration. The oölitic formation is most familiar in the Indiana limestone, and the trade application of the term is limited solely to this and kindred varieties of stone. Most of the sandstones and the oölites come

within the category of freestones. The texture is nearly always fine and even, and consequently they are, in the main, suited for delicate and elaborate ornamentation, save as there comes the modification of color, to be spoken of hereafter. In the granular and concretionary, or oölitic structure, the constituent mineral particles are held together by a cementing material, which is dull of color. Thus, there is never the liveliness shown by the crystalline rocks. There is none of the play of light that comes from the facets of a crystal, and that is never completely lost, even though the exposed surface of the crystal be smoothed by the rubbing-bed. For this reason the natural treatment suggested is that ornamentation be carved in greater relief than in a crystalline stone, so that there may be the play of light and shade from without. It also suggests that in plane surfaces the stone always be tooled or left in rock-face, unless there is warmth of color. The ordinary grays, blues and buffs of freestone, if sand-rubbed, are as dull and lifeless as concrete, and the architect might better give the preference to the cheaper material. The pink, red and brown stones, however, are best shown in plane surfaces, smoothed, with sufficient moulding and simple ornamentation to prevent severity. In the very dark stones carving loses the greater part of its effect, unless it is wholly in the round, like pinnacles, finials, crockets, etc., owing to the indistinctness of the shadows. Of course, this is not true of the light reds and pinks. But all of the color is due to the presence of mineral ingredients that tend to hasten disintegration if exposed surfaces invite the entrance of moisture. Besides, wise restraint is the soul of art, and rich body-color and elaborate ornamentation rarely harmonize in architecture.

One quality of the freestones that particularly fits them for ornate and highly-wrought carving is difficult to put into words. This is not the mere ease of working, but the direct and delicate response to the chisel, so that the finished surface might almost be called the autographic record of the artisan. There is an individuality that can be had in nothing else save the finest of the marbles. This it is that makes it possible to carve architectural statuary in a stone that has little natural life, and yet that does not show a hard, unfeeling result. One has but to glance at the many caryatides and atlantes carved in granite and limestone on our city buildings to see how the former stone yields in beauty and effectiveness to the latter for work of this nature.

In certain varieties of ornamentation it is particularly desirable to make the tool-marks plainly manifest. One of these is the Celtic pattern, and another is vermiculation. The reason for the desire to retain the tool-marks is that there shall not be too much regularity in the ornament, but that it shall look, in the first instance, as if the design were made separately by actual braiding, and then applied; in the second case, the desire, probably, is to simulate the work of worms. When the ancient Celts used the braided work for their famous crosses, they did not employ any of the fine native granites for the purpose, but rather the Irish limestone. This was not for ease of working, for it cuts as hard as many granites. It is a dense crystalline stone, of a fossiliferous nature. It is a dark blue-gray in the fractured surface, but a peculiarity is that it tools almost white, and the light tool-marks never fade away to the original color of the rock. A stone of an identical nature is found in the central part of New York State. The use of such a material would permit of artistic effects where a marked contrast is desired between the worked and the unworked surfaces.

Every city in the country can show scores of instances where no attention has been paid to the above very obvious limitations of structural stone. In few cases is the fault due to a lack of perception on the part of the architect. What chance had he to adapt his design to the material, when at the time of drawing it he could not tell how much his patron would be swayed by questions of cost or time? He must either trust to chance that his design will find a fitting material, or try a compromise with his artistic instincts, always a dangerous expedient. One of the handsomest and most elaborate buildings in New York has a profusion of ornamentation in the form of festoons and bosses, all rather ponderous and heavy in design. This was evidently conceived with the idea that it would not be ruined if carved in either granite or marble. As a matter of fact, the stone finally chosen was one of the most delicate and fine-grained of American marbles. The nature of the stone would admit of the most exquisite refinement in carving, and it stands out as an opportunity wasted. Another building has panels and spandrels filled with sculptured figures and the most delicate floral designs of the later Renaissance style. But it is in granite, fortunately, of a fine, uniform grain and of light color. It is a superb example of stone-carving in itself, but the figures, especially, have the hard, repellent look that must always follow any attempt to render the human form in a material which is not fully responsive to the chisel. The artistic effect would have been superior, and the cost far less, if the design had been carried out in marble or any light freestone.

The above discussion of the limitations of the various stones used for structural purposes clears the way for a suggestion of the general principles underlying the adaptation of design to materials. There is no pretense that the matter is to be settled by the *dicta* of any man, and this claims to be nothing save a contribution to a subject that has been strangely neglected. Reduced to briefest form, I conceive the natural treatment of our building stones to be as follows: For coarse-grained stone, of light color, bold and vigorous ornamentation, simple mouldings, and large plane surfaces are most suitable. Fine-grained stone, of soft and even texture, liveliness and light color, calls for ornamentation of classical delicacy and refinement, with flat surfaces tooled. Light-colored freestones are most effective with elaborate ornamentation, carved in high relief, and with flat surfaces invariably tooled. All dark or highly-colored stone should have rubbed or hammered surfaces, and few and bold ornaments and mouldings.

Painters work with oils, water-colors, charcoal, or pastel, but they never seek to over-ride the limitations of their *media*, unless they are faddists or seeking cheap sensationalism. Americans who commission architects should be forced to a realization that the limitations of structural material are far more rigid. No considerations should be weighty enough to justify a disregard of them. Architects must be unfettered by sordid considerations. In the good time coming no finished design will be drawn, even at Government dictation, until the general nature of the structural material to be employed is irrevocably determined.

FRANCIS W. HOYT.

THE USE OF BURNED CLAY PRODUCTS IN THE FIREPROOFING OF BUILDINGS.[1]—III.

NEXT in importance to the protection of steel stanchions comes the matter of girder-protection (and for a better understanding between us, allow me to say that the word "girder" used herein is intended to refer to the beams resting directly upon stanchions, whether the latter be of steel or brick). Girders are of various form and size, from the single I-beam used in the ordinary mercantile structures to the great box-girder such as is used in the proscenium-walls or the roofs over the stages of theatres. The flanges of girders always admit of tiles being very firmly secured between them by cement joints, being forced into place between the flanges. But soffit tiles for the exposed bottoms of girders often require mechanical fastenings if the girders are wide. These fastenings, however, are never left exposed, but the sections are such that any metal used is covered with a tile. Approved sections of fireproofed girders are shown in Figs. 2, 5, 7, 8 and 9.

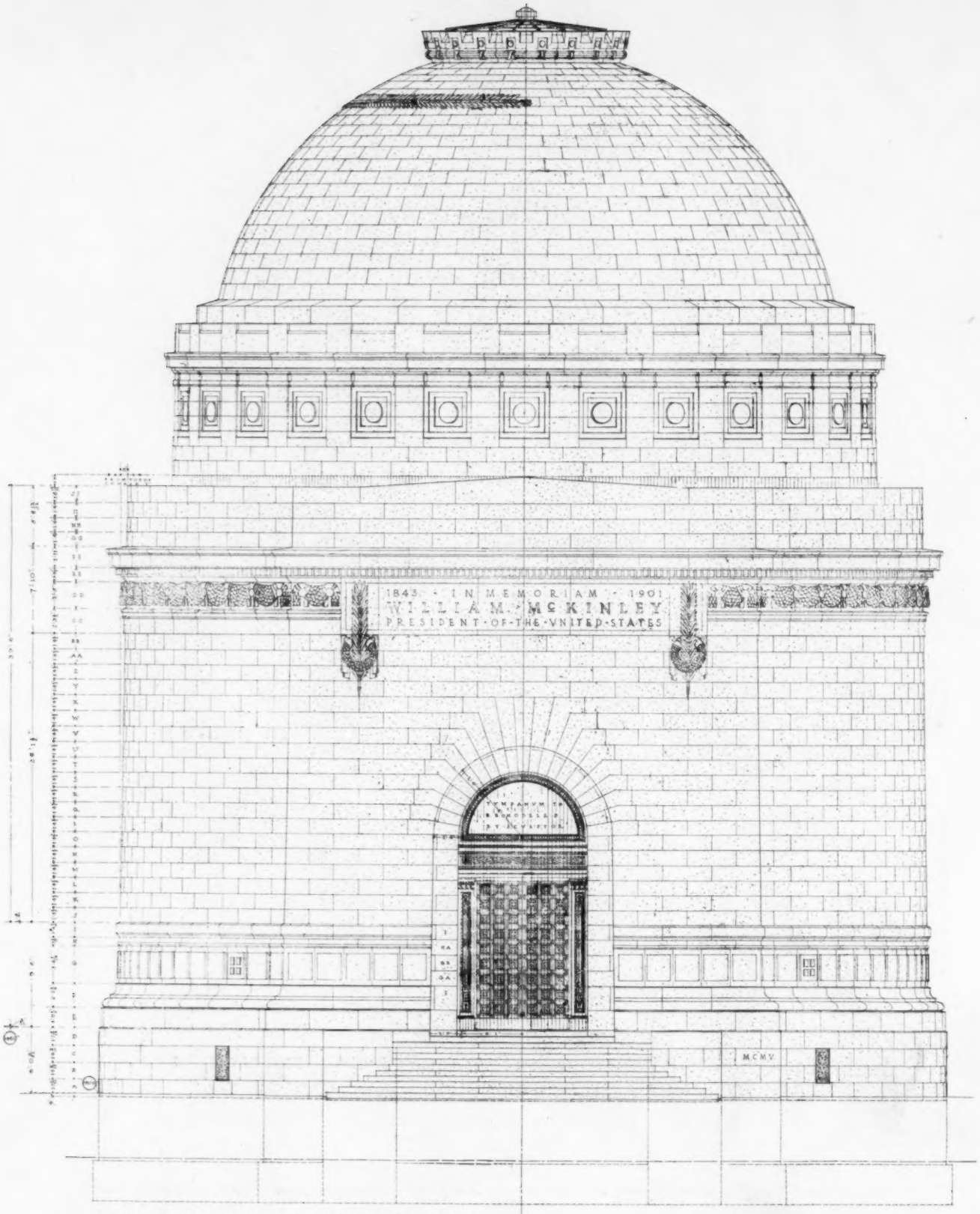
* * * * * * * * * * * *

The above-described details cover only a few of those now in regular use, but it is hoped that they may serve to illustrate the main features of the system. The illustrations are mostly copies of working-drawings of executed work showing many other details of construction which I will not attempt to describe.

A system of burned-clay fireproofing which is used to a large extent in the United States, but not so generally as that before described, is that known as the Guastavino system. It was introduced by Rafael Guastavino, an architect, who came to America from Barcelona, Spain, in 1878. It would take more time than I have to spare to describe the principles involved or the details of this construction. It is called by him "cohesive construction," and all the work is done with laminations of small flat tile about 6x10 inches in size and ⅞ of an inch thick, laid in as many courses as may be necessary in Portland cement, breaking joints, and seldom more than four courses in thickness. It dispenses very largely with steel, and except where used in place of a steel girder all flat surfaces are spherical, no barrel-arches being used. It is therefore monolithic and homogeneous. The ultimate and highest expression of this system of construction has been shown in the building of large and, often, very flat domes. But it is principally used for floors and roofs.

In all tests that have been made its fireproof qualities have been proved, and in the conflagration at Paterson, New Jersey, a few years ago, it went successfully through several actual tests in buildings. The architects of the United States feel greatly in-

[1] A paper by Peter B. Wight, F.A.I.A., Editor of "Fireproof Magazine," presented at the International Congress of Architects.



VERTICAL JOINTS OF COVRSES E AND F, M AND T, AND COVRSES ABOVE T, UP TO AND INCLUDING, COVRSE 28 FOLLOW VERTICAL JOINTS OF COVRSES C AND D · · · · VERTICAL JOINTS OF COVRSES 8 ARE INDEPENDENT OF JOINTS OF OTHER COVRSES · · · · SOVTHERLY FACE OF ENTRANCE PAVILION IS PLVMB-SIDES BATTER · · BATTER IS IN RATIO OF 0' 1,H 3 9/16 · ·

SOVTHERLY ELEVATION

M'KINLEY NATIONAL MEMORIAL, CANTON, O.

H. Van Buren Magonigle, Architect.

The American Architect and Building News.
Regular Edition.

Volume XC., Number 1603.
September 15, 1906.

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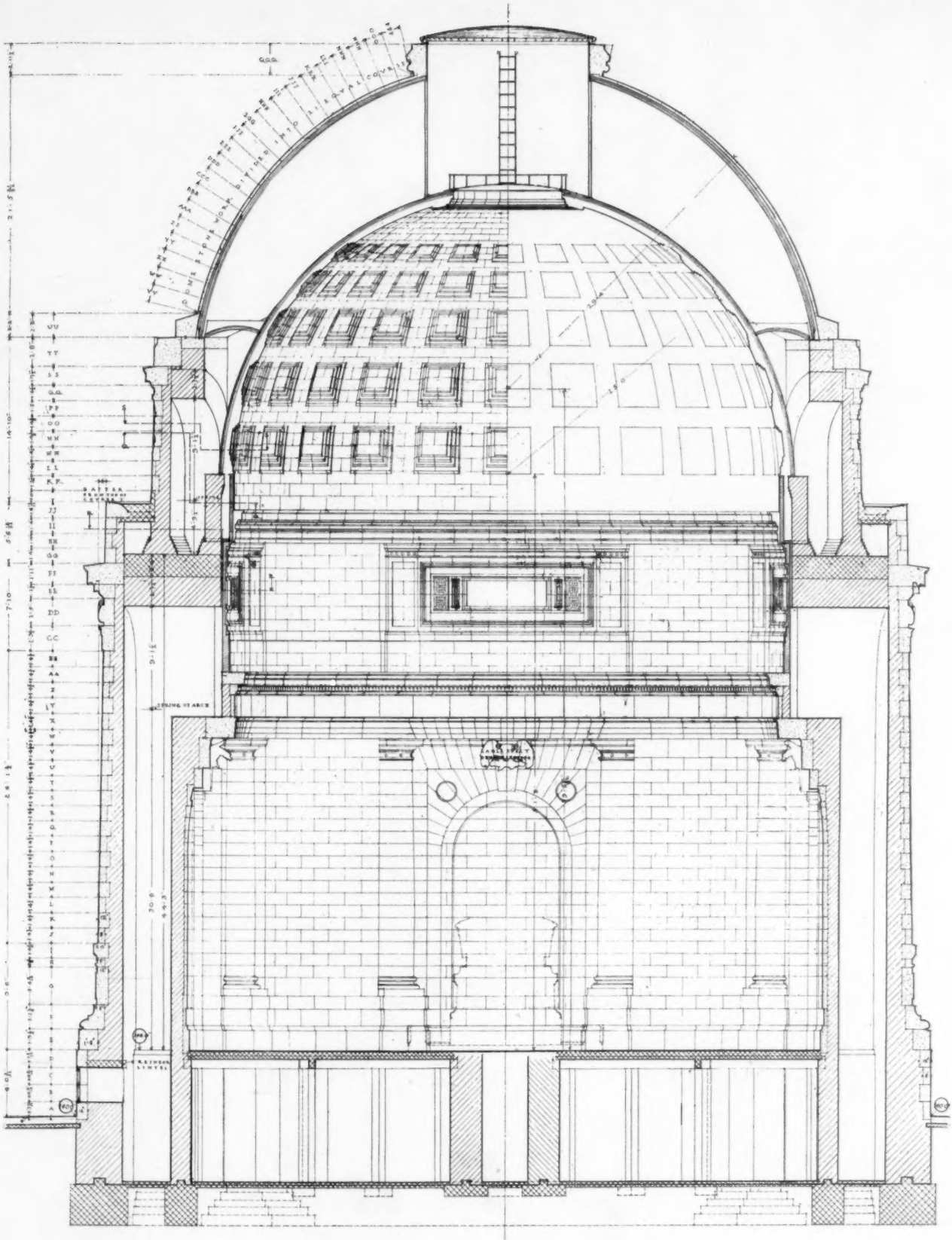

TRANSVERSE SECTION

M'KINLEY NATIONAL MEMORIAL, CANTON, O.

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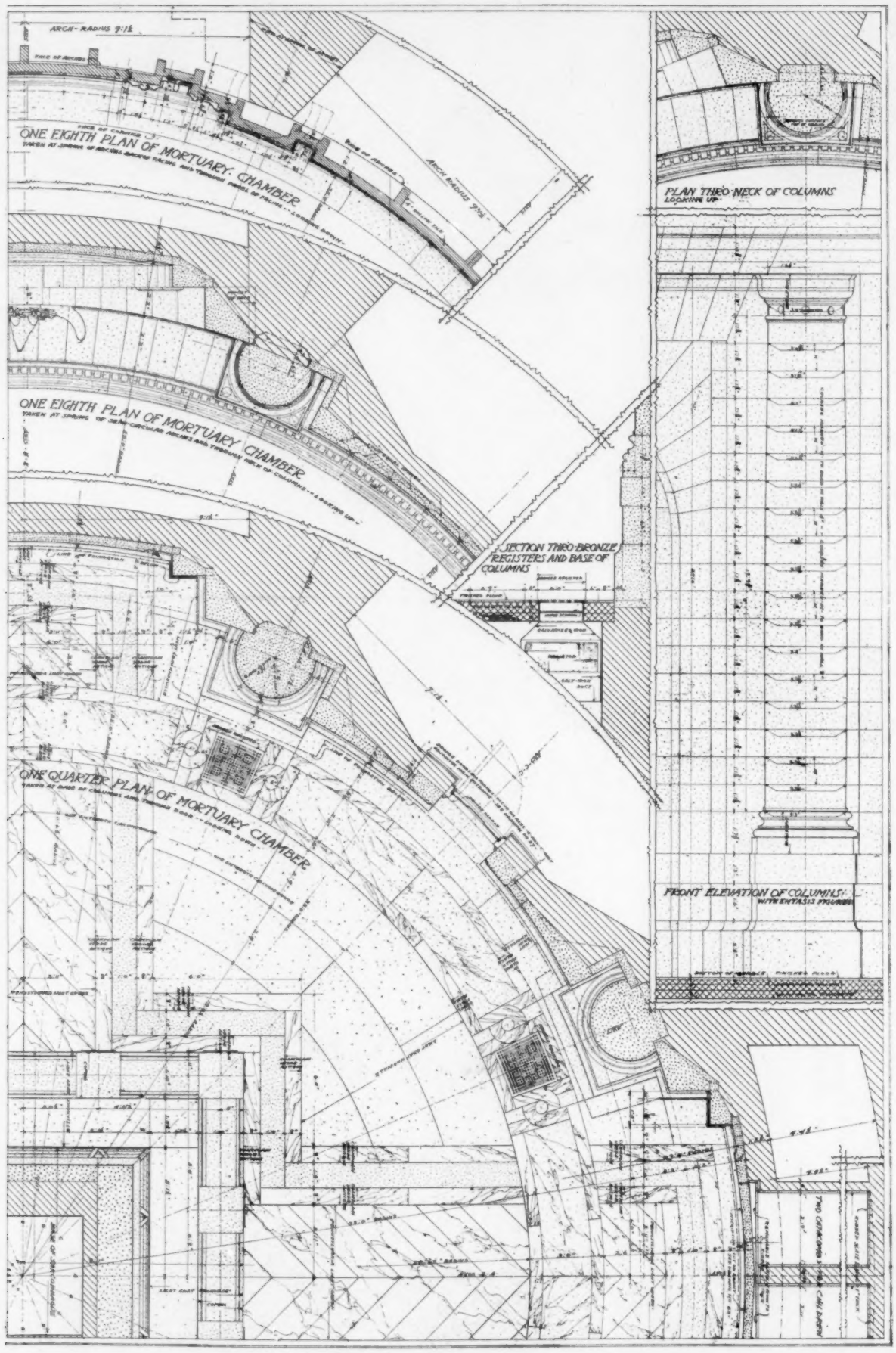
ONE EIGHTH PLAN OF MORTUARY CHAMBER
ONE EIGHTH PLAN OF MORTUARY CHAMBER
ONE QUARTER PLAN OF MORTUARY CHAMBER
PLAN THRO NECK OF COLUMNS
LOOKING UP
SECTION THRO BRONZE REGISTERS AND BASE OF COLUMNS
FRONT ELEVATION OF COLUMNS

DETAILS OF MORTUARY CHAMBER: M'KINLEY NATIONAL MEMORIAL.

H. Van Buren Magonigle, Architect.

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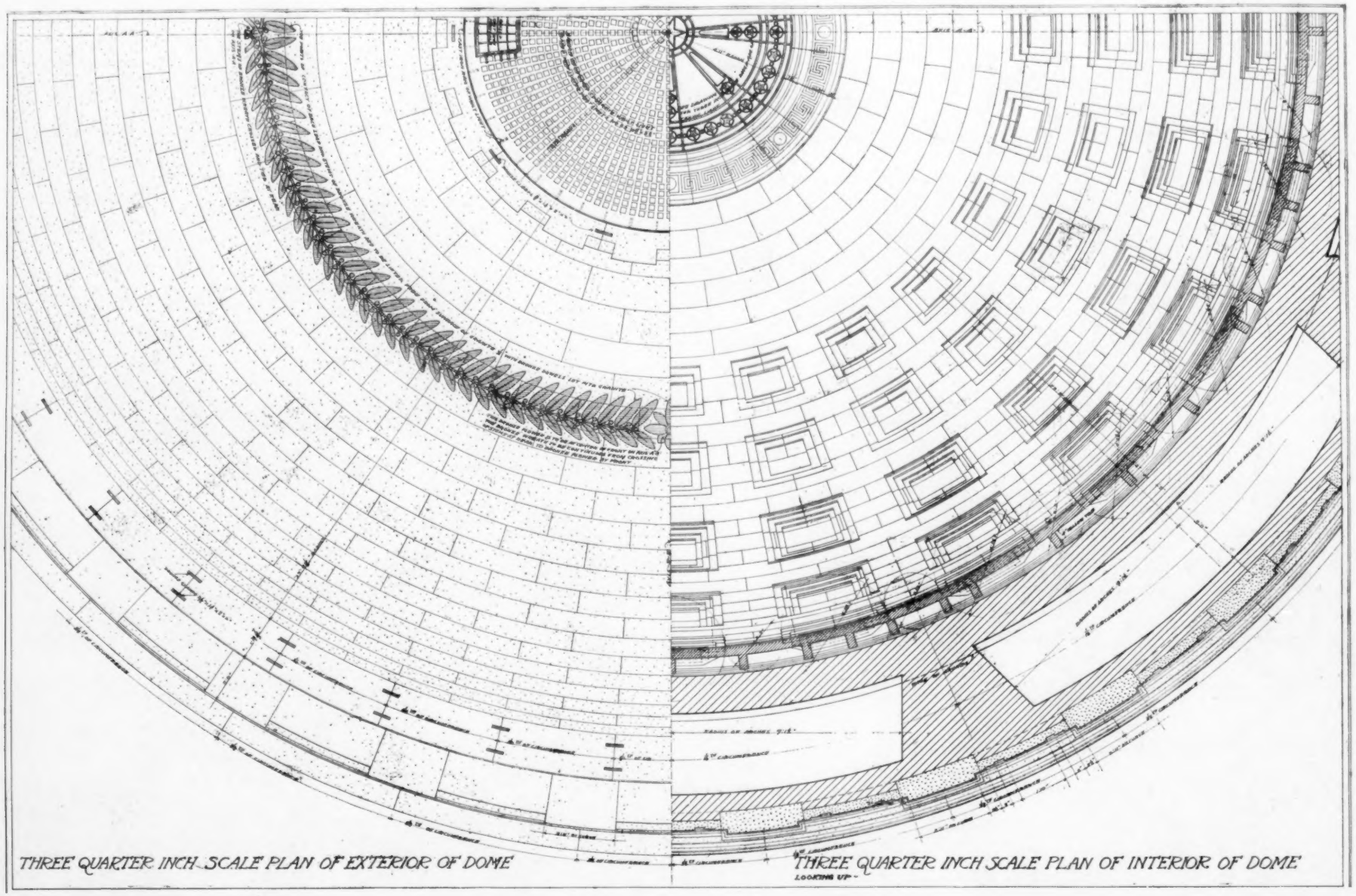

PLAN OF DOME: M'KINLEY NATIONAL MEMORIAL, CANTON, O.

H. Van Buren Magonigle, Architect.

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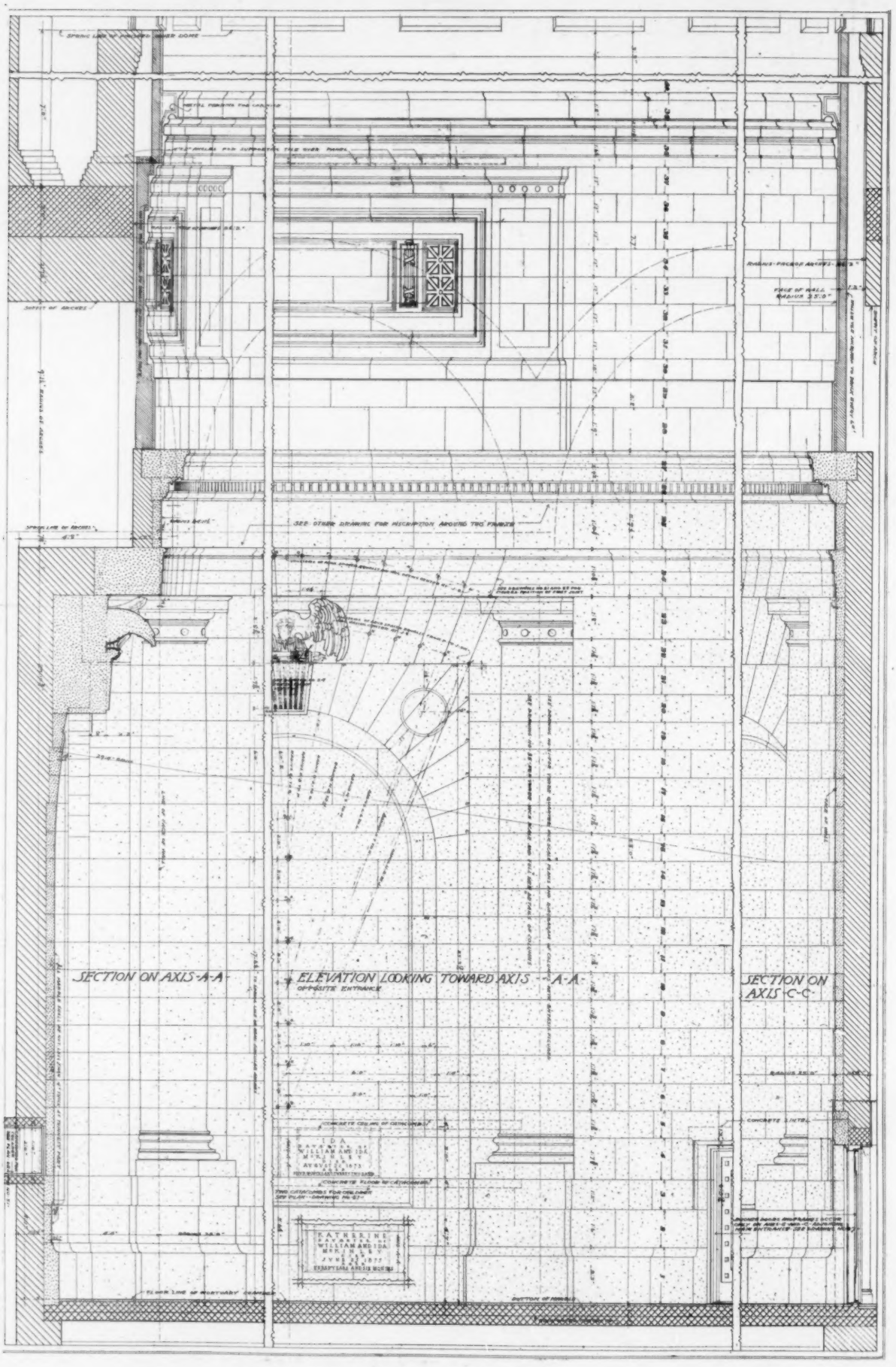
SECTION ON AXIS-A-A-
ELEVATION LOOKING TOWARD AXIS - -A-A-
OPPOSITE ENTRANCE
SECTION ON AXIS-C-C-
SEE OTHER DRAWING FOR DISCRIPTION AROUND THIS FRIEZE

INTERIOR DETAIL: M'KINLEY NATIONAL MEMORIAL, CANTON, O.

H. Van Buren Magonigle, Architect.

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September 15, 1906.

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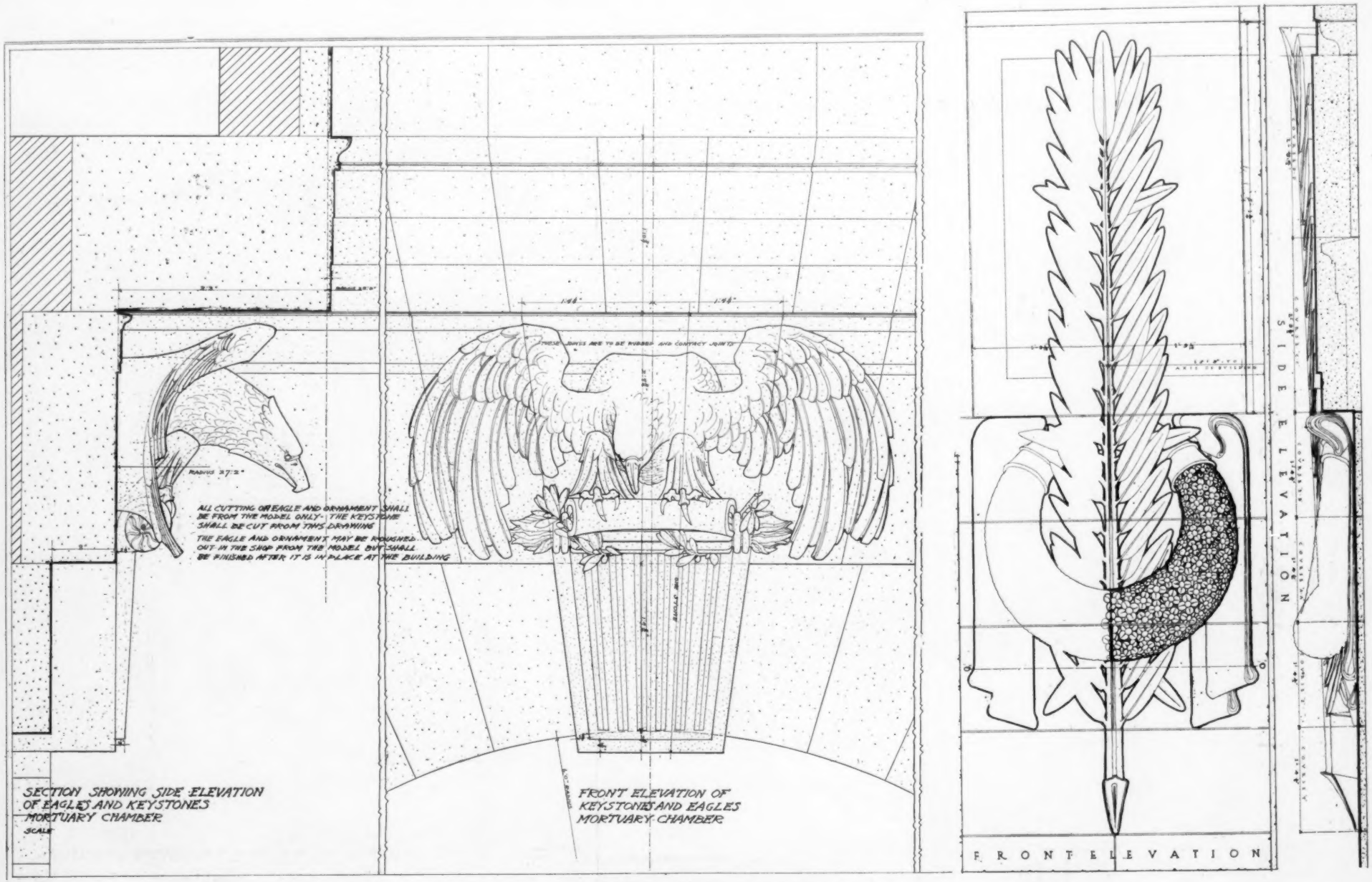
ALL CUTTING ON EAGLE AND ORNAMENT SHALL BE FROM THE MODEL ONLY - THE KEYSTONE SHALL BE CUT FROM THIS DRAWING
THE EAGLE AND ORNAMENT MAY BE ROUGHED OUT IN THE SHOP FROM THE MODEL BUT SHALL BE FINISHED AFTER IT IS IN PLACE AT THE BUILDING
SECTION SHOWING SIDE ELEVATION OF EAGLES AND KEYSTONES MORTUARY CHAMBER
FRONT ELEVATION OF KEYSTONES AND EAGLES MORTUARY CHAMBER
SIDE ELEVATION
FRONT ELEVATION

SCULPTURAL DETAILS: M'KINLEY NATIONAL MEMORIAL, CANTON, O.

H. Van Buren Magonigle, Architect.

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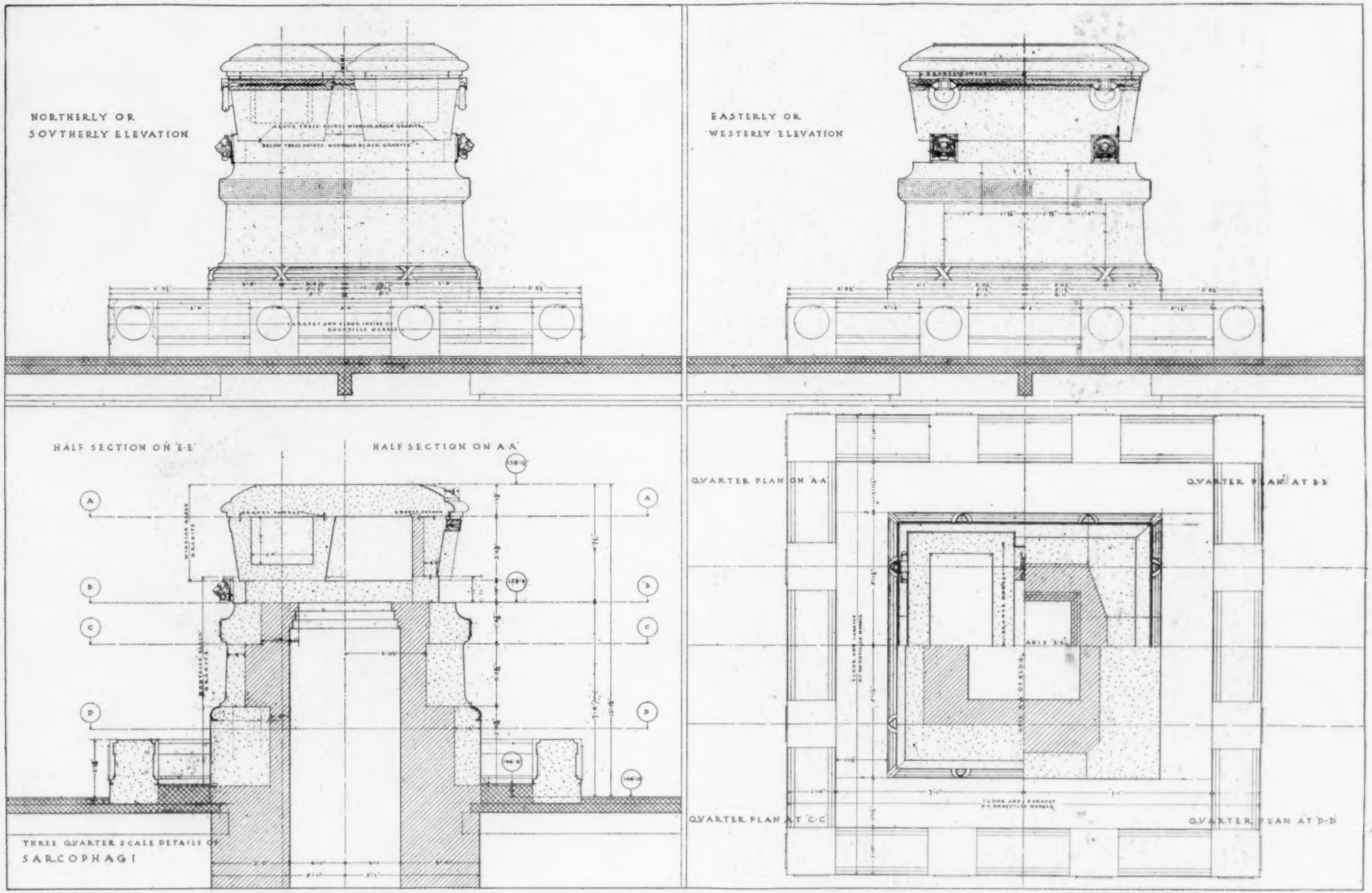

SARCOPHAGI IN THE M'KINLEY NATIONAL MEMORIAL, CANTON, O.

H. Van Buren Magonigle, Architect.

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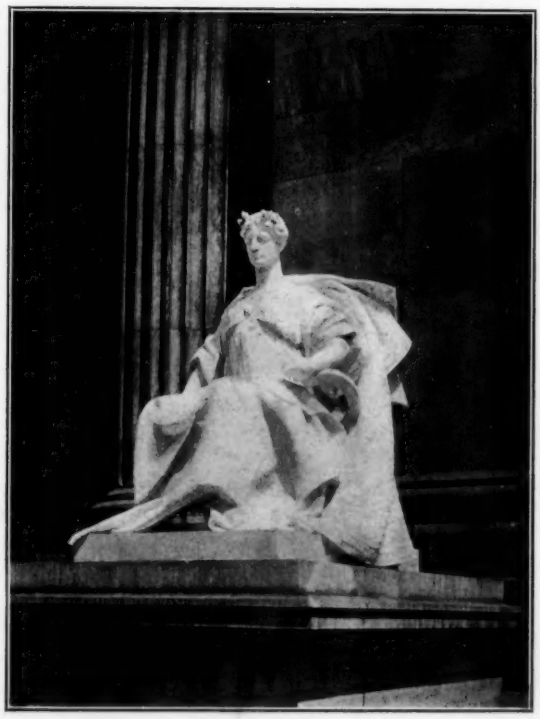

J. Massey Rhind, Sculptor.

[See also Nos. 1377 and 1602.]

Copyright, 1906, by J. Massey Rhind.

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debted to Mr. Guastavino for introducing and practising his system, for it has made possible many accomplishments in novel design which might not otherwise have been carried out. It has been in use for twenty-eight years without failure or accident. Though not now protected by patents, no one else has ever attempted to do similar work, that I know of, except in one instance of a vaulted church ceiling. It is a method that requires trained and expert workmen, as well as an accomplished head to direct

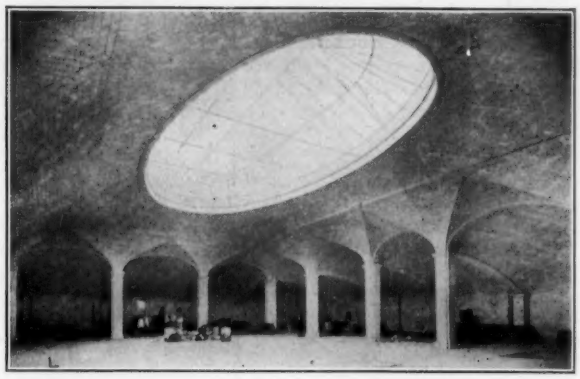


FIG. 19. INTERIOR OF THE EXHIBITION ROOM, COVERING THE ENTIRE TOP STORY OF THE TIFFANY BUILDING, NEW YORK CITY. GUASTAVINO SYSTEM. EXECUTED IN ENAMEL TILES.

them. Mr. Guastavino and his son plan and direct the work. He is an architect of reputation in his native country, but gave up his practice shortly after he came to the United States. The illustration herewith presented is a halftone from a photograph of a floor in the Tiffany Building New York City (Fig. 19).

The principles embodied in the Guastavino system have been put in practice in one of the largest storage warehouses in the world, that of the Pittsburgh Terminal Warehouse and Transfer Company, at Pittsburgh, Pa. In this building the unit of floor-construction is a panel 20 x22 feet, the floors being supported by steel stanchions at these distances. The short spans between the stanchions are supported by 18-inch I-beams, and the long ones by 24-inch I-beams. Short 8-inch I-beams set diagonally near the stanchions form diagonal square platforms, from which are sprung four arches of 6-inch hollow tiles to the center, with a rise of only 17 inches. The four sections meet at joints where 8-inch cambered I-beams are set as guides, these being sprung from the girders and meeting at the crown of the arch. This makes a domical construction, the haunches of which are filled with concrete to make a level floor, which is finished with cement. (See Fig. 20.)

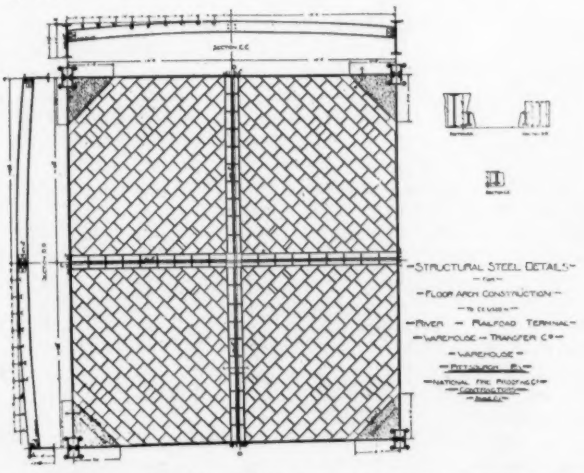


FIG. 20. PLAN AND SECTIONS OF ONE FLOOR-PANEL, SHOWING CONSTRUCTION OF THE PITTSBURG TERMINAL WAREHOUSES, PITTSBURG, PA.

I have only to refer to one more of the many uses made of hollow clay tiles in this country, and that is an extensive one, though it dates only about six years back. This material is causing a revolution in the method of building grain storage houses, called in the United States "elevators." The reason for the use of that name is not generally understood, and can be explained in a few words. All the grain that enters these structures is carried by machinery to the house on top, called the "cupola," and there distributed to the bins, which hold from 20,000 to 80,000 bushels each. When it is removed it is taken out at the bottom and then "elevated" again to the top, to be delivered through chutes to boats or cars. Hence it is all "elevated" twice. Formerly the bins were built of solid wood, by nailing 2 x 6-inch scantlings on top of each other, on the flat sides, like bricks in a wall.

The first engineer to plan these elevators in the United States was George H. Johnson, now deceased. Though he was a native of England, his inventions were all made when he was in America. The old form of grain elevator, surrounded by brick walls and sometimes only with sheet-iron, and bins enough to hold from 500,000 to 2,000,000 bushels, was his invention. The system was introduced at Manchester about eight years ago, long after his death. He had in two cases built the bins of brick and circular, reinforced with iron insertions, but they were too expensive to repeat.

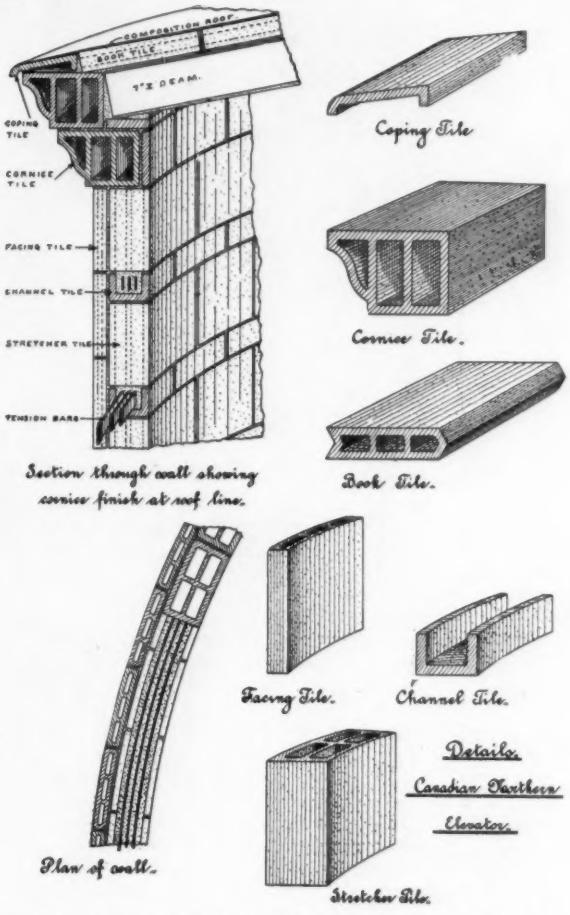


FIG. 21. DETAILS OF HOLLOW TILE GRAIN TANKS AS BUILT BY E. V. JOHNSON, ENGINEER.

It is therefore natural, in the course of events, that Mr. Johnson's son, Mr. E. V. Johnson, should have perfected in permanent fireproof materials the elevator construction that his father initiated. The first test was on a single bin at Minneapolis, to contain 20,000 bushels. He built it of hollow clay tiles, reinforced with steel bands set edgewise within the tile wall, filled it with wheat and tried to destroy the grain by building a fire against it. He did not succeed in the latter purpose, and the result has been that up to the present time there are probably one hundred million bushels of grain stored in tanks of similar kind which have since been built, and nearly all of it is uninsured. It is hoped that a few illustrations will show how these "elevators" are constructed. (Figs. 21 and 22.)

* * * * * * * * * * * * *

It must now be evident to the hearer, as it is to the writer, that the subject of this paper is such a vast one that it is impossible to comprehend more than an outline of it in this effort. I have not troubled my hearers with statistics or told of the great and costly structures in which the American system of fireproof construction has been used for the past twenty-five years; nor have I

descanted upon its effectual saving of the structural parts in the Baltimore conflagration, or the part which it has borne even more effectively in the recent San Francisco disaster, notwithstanding much that has been said to the contrary. These are matters of history. Nor have I claimed for it absolute perfection. Like all the other efforts of mankind, it is still in evolutionary development. It is an art which is not practised with equal conscientiousness by all. The material of which I speak has too often been used as a sham and pretense to mislead the victims of the greedy impostor into a sense of security for which there is no reason. More than one burned building has proved this. But

FIG. 22. GRAIN TANKS AND ELEVATOR BUILT BE E. V. JOHNSON AT SOUTH CHICAGO, WITH REINFORCED HOLLOW TILE. THE ELEVATOR, WHICH WAS NOT FIREPROOF, HAS BEEN DESTROYED BY FIRE, WITHOUT ANY INJURY TO THE TANKS.

more than a hundred others have been saved from fires in their early stages that would have been wholly destructive in buildings of the ordinary class.

I venture also to say that the fireproofing with clay products is in no country impracticable on account of added cost. The fact that the earliest inventions in this material were in Great Britain and on the Continent, were not developed and put in practice in those countries, but in one across the sea, is no argument that they have been tried and found wanting. If the manufacture should be more expensive at first than in the United States this would only show that improved methods and machinery, there used, are here unknown. In my opinion this fireproof material, as made in the United States, could, after less than one year's experience, be made cheaper in England, or France, or Italy, than on the other side of the ocean, with its high-priced labor and coal. It is a large product and must be made on a very large scale. It must also find cheap transportation. I do not think that the American manufacturers are anxious to send their product to Europe, though I know that it has been shipped from New York to London at less cost than it could be transported by a short railroad line in England. I think that American contractors, whose spirit and enterprise know no bounds, would much prefer to buy or make their materials in the countries in which they find contracts to execute, than to carry them away from home where they have plenty of use for them. It is matters like this which seem to me to be especially pertinent to an international congress of architects. We are here to learn what others are doing; and while we learn from others we are endeavoring to impart that information which we happen to possess to our brothers in other lands, which we hope will be useful to them. It is for such reasons that I have endeavored to contribute what little I can to the fund of information to be here accumulated for the benefit of our confrères throughout the world.

A LAY EDITOR ON ARCHITECTURAL COMPETITIONS.

THERE is considerable discontent in professional circles with the prevailing habit of architectural competitions. The dissidents take the view either that competitions are clumsily managed and unfairly judged, or else that they are uneconomic and vicious in principle. Representing the first class, a prominent architect asserted in the last general meeting of the Institute that Mr. C. F. McKim's sketch plans for the University Club would never have received an award in a competition. The statement was undisputed, and certainly indicates that there usually is something amiss with the programmes, the judges, or the competing architects. The smaller class which regard competition not only as subject to perversion, but as unjust *ab initio*, offer a plausible but not wholly convincing moral argument for their case. It is illustrated in a clever skit by Mr. Henry Rutgers Marshall, in last month's *American Architect*, in which he imagines the Architectural League proposing a competition among lawyers in order to choose its solicitor. The fairly grotesque terms, the inadequacy of the reward, etc., are borrowed with the slightest alteration from the programme for the new buildings of Union Theological Seminary. The inference is that such a competition is an affront equally to the legal and architectural professions.

The moral objection may be more concretely stated as follows: Ten established firms are invited to enter a competition for a million dollars, being promised a thousand dollars apiece as indemnity for the expense of preliminary designs. But the regular fee for preparing such designs would be in every case one per cent., or ten thousand dollars. In other words, the Building Committee receives, in nine cases, at a thousand dollars, a service worth ten. This argument, however, is too mathematically good to be true, and falls to the ground when it is recalled that no architect can be compelled to enter a competition. The system could any day be defeated by an agreement of the best firms to stay out. On the other hand, it should be noted that established firms do compete under protest, with a sense that the method is very defective and subject to grave miscarriages of justice.

Into the matter of log-rolling, playing up to the taste of influential members of the jury, we will not go, because these are defects inherent in any such rivalry. If the profession of architecture is worse off in this respect than the others, it behooves the authoritative bodies to assume a severer attitude towards unprofessional conduct. There is, however, much to be said against a system that uneconomically brings out, say, fifty designs where a single building is required, and tends at least to eliminate the best firms and leave monumental buildings to be scrambled for by mediocrities. But all this is largely a matter of methods. Because invitation competitions are insufficiently paid is not a reason for abolishing them, nor is the frequent holding of open competitions, where limited contest would be advisable, a cause for despair. What we want is clearly a class of advisers and judges, such as actually exists in France, capable of drawing up simple and rational programmes, beyond personal influences, and fully aware of the mere tricks of the draughtsman which would pass for substantial design. In short, the most serious criticism of competitions among us lies not so much against the system itself as against the average committee and jury.

When it is remembered that young architects almost always commend the system, changing to the other opinion only after they have "arrived," it will be felt that the practice has at least the merit of encouraging rising talent. For this reason alone we should be sorry to see the admittedly uneconomic open competitions wholly done away with. We feel that it is unwise to trust to the hazard of such a free-for-all any very important building; but there is a whole class of smaller structures of a public or semi-public character where open competitions seem eminently in place. With respect to the greater commissions, we can only say that it is absurd to expect a firm that is prospering to encounter unpaid the chances of a large field; furthermore, that it is unfair to ask such a firm to compete, without at every stage fully repaying the costs of competition. Experience has taught, too, that in most cases the best results are obtained without competition by selecting the architect directly.

But right here appears the human and unprofessional side of the problem. An individual may fairly succeed in picking his man, but the great buildings are rarely in the hands of individuals. A corporation, lay or ecclesiastical, will practically have the greatest difficulty in making an impartial choice. As many competent architects may be in sight as there are stockholders or pew-owners. When the rebuilding of St. Thomas's Church was broached, it was found that some forty architects had substantial backers in the parish. Under such circumstances, what is there for it but the Apostolic method of casting a lot, or else some form of competition? It

was undoubtedly this motive that led the Commune of Florence in the old time to put out so many of its monuments at competition; and the same solution is likely to be sought whenever direct choice of an architect seems impossible.

By a natural misapprehension of the scope of competitions, they have been criticised as a bad way of selecting a building. As a matter of fact, they never are a way of selecting a building. The artfully tinted drawings that win the suffrages of juries have the very slightest relations to the building that is to be. At best, they are merely an indication that the winner of the competition will work out an acceptable building. As a method of choosing an architect—the real difficulty for building-committees—there is much to be said for competitions. They afford, if frequently a lame conclusion, at least a conclusion where otherwise there might be an interminable deadlock.

Looking at the situation broadly, the following advice might be tentatively offered to clients: (1) Choose an architect directly if you can; (2) for a monumental building, hold a limited and properly paid competition, if you must; (3) for an ordinary building, hold an open competition, if you will. Finally, architects will probably have to put up with a system generally unsatisfactory from a professional point of view, so long as it affords an obvious convenience to that soulless but indispensable entity—the average corporate client.—*New York Evening Post.*

THE ABBEY OF ST. DENIS.

WHEN place and street in front are empty, St. Denis carries off its fallen fortunes with something of dignity. But as I last saw it, on a spring day, when the new conscripts of the year had gathered just outside, dancing, singing, buying big paper rosettes, not one with a thought or a glance to fling to it, the church struck me as being only in the way, useless, out of gear with the new life that had grown up about it, preserved entirely from sense of duty. It looked to me forlorn, with its one melancholy western tower; with the restorer's work half done on the exterior—not that I am not glad the work is only half done, but that it should be is exceptional in France, where restoration is so often overdone—with the long, rank, uncut grass in the inclosure to the north of the nave; with the mean houses shutting in the east end, and where care has been given, it is to mark it more unmistakably as the *"monument historique,"* the mere survival, its real life long since spent.

The fine interior, so like and so unlike Westminster Abbey, has virtually become a museum; the royal tombs, reached by that picturesque wide stairway to the ambulatory, suggest in their neat rows so many specimens, labelled and catalogued. One cannot see without emotion tombs like that of the good King Dagobert—great, too, though best remembered for the affair of the breeches in the song—of Louis XII, Henry II, Francis I, with their beautiful sculptures; of the last of the Bourbons, with their bitter memories. But to follow the sacristan as he drones out the story learned by heart and repeated until his very voice betrays his boredom with the whole business of royalty, alive or dead, is to see in St. Denis nothing save the show place for tourists.

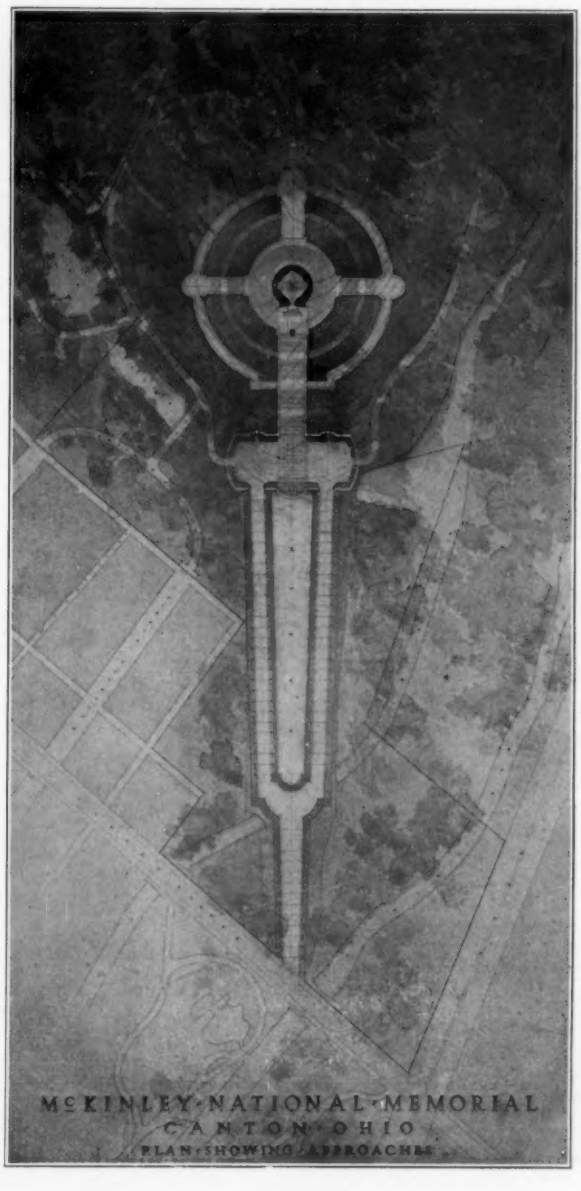
And this is the church that not even Notre Dame can outrival in the sanctity or splendor of its past, its site chosen by the holy man who was first Bishop, first martyr, first saint of Paris; the building founded by Ste. Geneviève, whose first chapel over his grave grew eventually into the church of which the Abbé Sugar made the first experiment with the pointed arch on so large a scale—the first great Gothic church; St. Denis, the shrine of the oriflamme of France; the Louvre, or Versailles, of dead royalty.

And so it remains, only a Louvre or a Versailles, shaken by the storm of liberty, equality and fraternity. Patriots of 1793 had no more use for dead royalty in its tomb, than living royalty in its palaces. And after "Patriotism had been down among the tombs rummaging," had played ball with the skeletons of kings—having to stop to hold its nose when that worst of old enemies, Louis XV, appeared, suffering a relapse into royalty before the embalmed body of that old favorite, Henry IV—after royal bones and royal ashes had been dumped into one unroyal common grave, after royal tombs had been broken and royal statues mutilated, there was not much left of St. Denis. But, defaced, roofless, a haunt of birds of prey, it was at least an eloquent monument to the hatred of the third estate for kings and priests. After the tombs—or so much of them as could be—were brought back by Louis XVIII, after new noses and hands and draperies were found for the poor, dishonored effigies, after the building was roofed in, its walls mended and everything generally put to rights by indefatigable Viollet-le-Duc, St. Denis was doomed to awake no feeling stronger than curiosity in the tourist. It is the irony of fate that royalty, dead forever in France, should rest not in the capital, nor in the cathedral, but in the parish church—to this rank has St. Denis been degraded—of a busy industrial suburb, the headquarters of anarchists, where the people who killed it are too busy to remember, much less to resent, the presence of its tomb among them.

There may be other places of interest in the suburb of St. Denis. I never looked for them. I am content with my last impression of it—with wide streets of dull shops and electric trams, with groups of conscripts, with gaunt factories, with chimneys belching smoke, and with the sad old church, the last resting-place of the royalty France sacrificed a century ago, that just such a busy industrial town might live and prosper.—*Century Magazine.*

ILLUSTRATIONS

MEMORIAL MONUMENT TO PRESIDENT M'KINLEY, CANTON, O.
MR. HAROLD VAN BUREN MAGONIGLE, ARCHITECT, NEW YORK, N. Y.
CROSS SECTION THROUGH THE SAME.
PLANS OF DOME OF SAME.



SARCOPHAGI IN THE SAME.
SCULPTURAL DETAIL OF THE SAME.
INTERIOR DETAILS OF THE SAME.
INTERIOR DETAILS OF MORTUARY CHAMBER IN THE SAME.
U. S. COURT-HOUSE AND POST-OFFICE, INDIANAPOLIS, IND. MESSRS. RANKIN & KELLOGG, ARCHITECTS, PHILADELPHIA, PA.—GROUPS IN FRONT OF THE SAME. MR. J. MASSEY RHIND, SCULPTOR, NEW YORK, N. Y.

Additional Illustrations in the International Edition.

WAREHOUSES OF A. WERTHEIM, BERLIN, PRUSSIA. HERR A. MESSEL, ARCHITECT.

This and the following plate are copied from *Zeitschrift für Bauwesen.*

INTERIOR TREATMENT OF LIGHT-SHAFT IN THE SAME BUILDING.
TWO BAYS IN LEIPZIGERPLATZ: SAME BUILDING.

These subjects are copied from *Blätter für Architektur.*

EVANGELICAL CHURCH, DEUTSCH-EYLAU, PRUSSIA.

This plate, also, is copied from *Zeitschrift für Bauwesen.*

NOTES AND CLIPPINGS

WATER ON TROUBLED OIL.—The principle of the rifled gun has recently been applied to pipes for pumping oil. The crude oil of California is mostly thick, viscous, and difficult to pump through long lines. Heating cannot be successfully applied to a long pipe, and mixing with water results in an emulsion from which the oil cannot be readily separated. The latest scheme for dealing with these viscous oils comprises a pipe rifled on the inside, so that the oil, mixed with about 10 per cent. of water, is caused to whirl rapidly. The water, being heavier than the oil, seeks the outside, and forms a thin film, which lubricates the pipe for the passage of the oil. The friction is thus so far reduced that the oil has been easily pumped through a line thirty-one miles long. The water and the oil come out entirely separate at the end of the line.—*Youth's Companion.*

THE SUN AS AN ARCHÆOLOGIST.—The sun, according to *The Dundee Advertiser*, has revealed an interesting scientific discovery which will delight the archæologists of the entire country. At Castle Park, Colchester, as elsewhere, the great heat of the last few weeks has considerably modified the natural greenness of the grass. But in one place there were noticed parallel and transverse bands of grass which were much browner than the surrounding verdure. Closer examination showed that the brown bands formed the ground plan of a spacious Roman villa. The shallow soil over the ruined walls of the villa had been dried more thoroughly than the deeper soil on either side of them.

FINGER-BOWLS AND MOSQUITOS.—Because she had not screened a finger-bowl with the regulation eighteen-mesh wire, Mrs. R. L. Arnold, a well-known New Orleans water-color artist, will have to answer in the Recorder's Court for alleged violation of the now celebrated cistern-screening law. Inspector A. G. Young, acting for the local Board of Health, made the affidavit, and an hour later Mrs. Arnold herself appeared in court with the finger-bowl. She uses the receptacle to wash her paint-brushes, and it is nearly always full of water. The inspector stated that he visited the artist's house, and upon examination he found that the bowl was unscreened, and contained several "wiggletails," or baby mosquitos.—*New York Herald.*

CATHEDRAL AREAS.—The Cathedral of St. John the Divine, now building in New York, will be the fourth largest in the world, says Canon Jones in the *World's Work*. St. Peter's, Rome, leads with an area of 227,060 square feet, little less than double the floor space of the next largest church, the Cathedral of Seville, in Spain, which follows with 121,000 square feet. The third place is taken by the Duomo, of Milan, which spreads over 107,000 superficial feet. St. John the Divine covers 90,500 square feet and will take the fourth place among the sanctuaries of the Christian world. Some other areas are as follows: Cologne, 91,464; St. Paul's, London, 84,025; York, 72,860; Amiens, 71,208; St. Sophia, Constantinople, 70,000; Chartres, 68,260; Lincoln, 66,000; Winchester, 64,200; Notre Dame, Paris, 64,108; Winchester, 61,729.

BURIAL-PLACE OF LEONARDO DA VINCI.—Two committees representing the cities of Florence and Paris are about to make a fresh search for the burial-place of Leonardo da Vinci. The actual search is to be undertaken by a body of scientists and artists selected by King Victor Emmanuel. The great artist died in 1519 at Amboise, where he had for a long time fixed his residence, and the house in which he lived, in close vicinity to the castle of Amboise, is still shown.—*Exchange.*

THE SULTAN'S TREASURES AND THE CASUBA.—In spite of pilferings, the imperial treasury at Constantinople must contain treasures of inestimable value. Some, but only a small proportion thereof, are shown to distinguished visitors, as, for instance, state harnesses, blazing with jewels and gold, gem-studded cimeters and robes, and exquisitely inlaid armor, matchless rugs, chibouks and nargiles, all bedecked with precious stones. But it is well known that these are only a fraction of the contents of the treasury. It must not be forgotten that, with the exception of London, Constantinople is the only European capital which, during a period of nearly five hundred years, has never been occupied and looted by a foreign army. Vienna and Berlin, Madrid and Paris, Lisbon and Moscow, Rome and Athens, have seen the enemy within their walls. But Constantinople, though repeatedly menaced, has never fallen since it was wrested by the Turks from the last of the Greek emperors, in 1453. On that occasion Sultan Mahomet permitted his troops to retain for themselves the spoils which they had obtained from the shops and from the houses of the rich, and most of these things were sold by the soldiers to the Venetian, Genoese and Florentine merchants who flocked to Stamboul for the purpose. But Mahomet kept for himself not only all the marvellous riches found in the imperial palaces, but also the treasures of the Basilica of St. Sophia and of the other sacred edifices, and it is probable that in Sultan Abdul Hamid's treasury to-day are still preserved the crown and sceptre of Emperor Constantine and the very sandals, adorned with gold eagles, which were taken after the siege from the corpse of the last of the Byzantine monarchs. There is but little danger of their having been destroyed, for, prone as we are to speak of the barbarism of the Turks, Constantinople itself furnishes a striking illustration of their absence of vandalism, most notable being, of course, the mosque of St. Sophia, one of the most glorious memorials of the Byzantine era which has been preserved with a care and a reverence for the past surpassing those accorded to many cathedrals and basilicas in Western Europe.

In addition to the contents of the Sultan's treasury, there is what may be described as the personal fortune of each sultan buried with him in his tomb. Every Ottoman ruler at his death has caused his most highly prized belongings to be buried with him, and there has never been any desecration of these tombs, no matter how hard pressed the sultan of the day and his government might be for money. This entombed treasure, thus guarded by the mouldering remains of nearly two-score sultans, is known as the Casuba, and has ever since the days of Peter the Great constituted an irresistible attraction to the emperors of Russia, to their government and to their people. The looting of the Casuba would more than suffice to pay off in its entirety the colossal national debt, foreign as well as domestic, of the Russian Empire. —*Marquise de Fontenoy in New York Tribune.*

COMPARISON OF COST OF CONCRETE AND STONE MASONRY.—The cost of concrete and stone masonry, says *The Scientific American*, varies largely with the local conditions and the character of the work on which they are used; but there are very few places where concrete masonry is not only cheaper than stone masonry, but better, being much stronger and more suitable in many ways. This fact is becoming more generally recognized, and more than one quarry which in former years produced building stone is now producing crushed stone for concrete. The following figures give a general idea of the comparative cost of brick masonry and concrete, per cubic yard:

BRICK.

500 brick	$3.75
¾ barrel cement	1.50
¼ load sand	.50
Labor	2.25
Making a total	$8.00

CONCRETE.

1 barrel Alpha cement	$2.00
¼ load sand	.50
Broken stone	1.50
Labor and forms	1.50
Making a total	5.50

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beats the chimney. Here is a boiler plant erected on the fourth floor of a large department store in Berlin, where area is of the greatest value. Not a square foot of floor space is occupied by the fans; the stack merely projects through the roof.

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WANTED—With architect or contractor, position as draughtsman, or to have charge of office, do drafting and some designing; two years experience railroad surveying and mapping, and two at maintenance and accounting; references given; age 22; I. C. S. student. E. S. W., 16 Morris St., Auburn, N. Y.

POSITION WANTED — Architectural draughtsman, American (30), desires engagement; 10 years experience in New York City offices; competent on working drawings from sketches; good clerk of works; superintending fine country work a specialty; salary desired, $25, $30. Address 4-B, care American Architect.

WANTED—An alliance with an established architect of a town or small city, by a New York architect 40 years of age, with best references as to ability, experience and personal character, but whose responsibilities and lack of acquaintance prevent successful practicing there. Willing to start as office superintendent and designer with understanding that an interest can be bought. Address 11-A, care American Architect. (1603)

POSITIONS OPEN.

WANTED — Experienced architectural draughtsman at good salary. Salfield & Kohlberg, Architects, San Francisco, Cal., corner Golden Gate Ave. and Buchanan St.

WANTED — Experienced draughtsman to take charge of office, competent in designing and construction of first-class work, also experienced in coloring and perspective work. Address E. J. ECKEL, Architect, F. A. I. A., St. Joseph, Mo. (1599-1602)

WANTED AT ONCE—A first-class architectural draftsman. References required. Address Frost, Briggs & Chamberlain, 518 Main street, Worcester, Mass. t.f.

CAPABLE DRAUGHTSMAN for general architectural practice, good designer preferred, is wanted in an office at Hartford, Conn. Address 9-A, care American Architect. (1601, 1602)

WANTED — Several good architectural draughtsmen. State experience and salary. GEORGE D. MASON, 80 Griswold street, Detroit, **Mich.** (1603)

WANTED at once, experienced architectural draughtsman. State salary and experience when writing. Cudworth & Woodworth, 148 Main street, Norwich, Conn. (1603-1604)

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Treasury Department, Office of the Supervising Architect, Washington, D. C., September 8, 1906.—Sealed proposals will be received at this office until 3 o'clock P.M., on the 2d day of October, 1906, and then opened for the construction (complete) of the temporary extension to the U. S. Post Office and Court House at Toledo, Ohio, in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Toledo, Ohio, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1603-1604)

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Keokuk, Ia.—Henry E. Ratcliff has prepared plans for the new church building for the Trinity Methodist Episcopal Congregation to be erected at Tenth and Main Streets. Cost, $50,000.

Knoxville, Tenn.—W. M. Bonham, Chas. Hasson and Saml. House, it is stated, intend erecting a business building for hardware purposes, at a cost of $50,000.

Lake Forest, Ill.—It is reported that plans have been completed for the erection of the Deerpath Inn by Frost & Granger, 806 The Temple Building.

Lawrence, Mass.—James E. Allen, architect, has been selected to draw plans for the $50,000 Administration Building for the Essex County Training School, in this city.

Lawrenceville, Pa.—The contract for a six-story steel frame and brick factory building at Thirtieth Street and Liberty Avenue for the Pittsburg Gage and Supply Company has been awarded to George Hogg Company, 541 Braddock Avenue, Braddock. The contract for the steel work was awarded to the American Bridge Company, of New York. Cost, $350,000.

Lexington, Ky.—Anderson & Faig are preparing plans for a building 150x100 feet, to be erected at a cost of $75,000; ordinary construction.

Long Beach, Cal.—A $100,000 six-story building will be erected for the Westminster Company. It is reported that J. B. Heartwell, president of the First National Bank, is interested in the company.

Lorain, O.—It is reported that plans have been completed for the High-school and the Manual Training School to be erected at a cost of $200,000.

Los Angeles, Cal.—Newmark Bros. will erect a five-story brick building on East First Street, 50x120 feet. A. F. Rosenheim, Hellman Building, is architect.

John T. and Charles Allen will erect a three-story building at East Ninth Street and Los Angeles Avenue, at a cost of $50,000.

J. C. Austin, architect, is stated to have plans under way for the 60-room hotel building which is to be erected on the property at the corner of Wilshire Boulevard and Coronado Street.

Louisville, Ky.—The Cleveland, Cincinnati, Chicago & St. Louis Railroad and the Chesapeake & Ohio Railroad, it is stated, intend erecting a three-story brick freight station at Floyd and Preston Streets, to cost $75,000.

Macon, Ga.—Plans have been completed for a new compress and warehouse. It is to be the largest in the South. Estimated cost, $250,000.

Marion, O.—Bids will be received until September 19 by the Board of Trustees (T. F. Dombaugh, secretary), for erecting a public library. Richards, McCarthy & Bulford, architects, Columbus.

Martinsburgh, W. Va.—The Board of Education is considering the erection of a $50,000 High-school and ward building in the First Ward.

Memphis, Tenn.—It is reported that the Shubert Company will erect a theatre here for the season of 1907.

Mendenhall, Miss.—It is stated that plans are being prepared to be submitted to the Board of Supervisors of Simpson County, at Westville, for a court-house and jail, which it is proposed erecting in Mendenhall; probable cost, $50,000.

Menominee, Mich.—Reports state that the Lloyd Manufacturing Company, of Minneapolis, manufacturers of steel and wire novelties, will build a $100,000 plant here.

Middletown, Conn.—Wm. D. Johnson, of Hartford, it is stated, is preparing plans for an amusement hall, to be erected at the Connecticut Hospital for the Insane at Middletown, to replace the structure recently destroyed by fire.

Milbank, S. D.—It is stated that the County Commissioners are considering the erection of a new court-house.

Millen, Ga.—The citizens of Jenkin County will vote on a $900,000 bond issue for building court-house, jail and bridges. Address County Clerk.

Milwaukee, Wis.—Architects Wolf & Ewens, Miller Cafe Building, are at work on plans for three buildings for the Miller Brewing Company, to be erected at the company's plant at a cost of about $500,000. There will be refrigerating plant, a bottling house, and a warehouse.

The Hilty Lumber Company has had plans prepared by Architect E. F. Ringer, 106 Mason, for a three-story building, 180x184 feet, to be built at St. Paul Avenue and Twelfth Street, to cost $75,000.

J. Hoffman & Sons, wholesale grocers, it is stated, are about to erect a $100,000 steel and concrete building at Buffalo and East Streets.

Herman Nunnemacher will erect a $60,000 flat at Bradford and Prospect Avenues, three-story brick, 60x160 feet. Hood & Tullgren, 86 Michigan Street, are architects.

T. B. Walker, 518 to 532 First Avenue N., is planning the erection of an eight-story brick warehouse. Cost, $450,000.

L. J. Pettit, Geo. P. Miller and others propose a country club at Gifford's Station. About $60,000 will be expended in improvements to the grounds.

August Uihlein, it is stated, is preparing plans for a $50,000 brick restaurant building, to be erected at Detroit Street and Broadway.

It is stated that plans are being prepared by S. Jung for a $50,000 brick building to be erected on Broadway.

Louis Lehle, architect, Chicago, Ill., has prepared plans for a brewhouse to be erected on Johnson Street, Milwaukee, at the cost of about $425,000.

Minneapolis, Minn. — Bertrand & Chamberlain, architects, 617 Bank of Commerce, are preparing plans for a six-story pressed brick and cut stone warehouse for the Central Supply Company, to be built on Third Street; fireproof construction; cost, about $50,000.

Montgomery, Ala.—It is reported that plans have been prepared for a four-story building to be erected at Coosa and Jefferson Streets, for Schloss & Kahn, at a cost of $150,000.

Muscatine, Ia.—Congress has appropriated $75,000 for a new public building to be used as a post-office.

Naperville, Ill.—It is reported that contracts will be awarded in a very short time for the building of a scientific hall and library to cost $50,000, for the Northwestern College. The buildings will be located near the college. William Grote, Elgin, chairman of the Building Committee.

Newark, N. J.—Nathan Myers, 238 Washington Street, it is stated, has prepared plans for the $80,000 office building to be erected adjoining the Waldmann's Theatre for the Chelsea Security & Investment Company.

New Orleans, La.—Plans will shortly be prepared for the erection of the St. Paul's Methodist Church, to cost about $150,000.

George J. Glover has been awarded the contract for the erection of a proposed bank and office building for the Canal Bank & Trust Co.; structure to be nine stories; cost, about $300,000. Diboll & Owen, Ltd., architects.

The Canal-Louisiana Bank & Trust Co. has awarded the contract to George J.

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Glover, Hibernia Bank & Trust Building, for erection of bank and office building; nine stories high; steel fireproof construction; Webster or Paul heating plant; electric and gas lighting fixtures; electric elevators; estimated cost, $350,000; plans prepared by Diboll & Owens. Steel and terra-cotta contracts have been awarded by Mr. Glover, and he wants proposals on the remaining materials required.

Bids are asked by the trustees of the First Baptist Church, W. W. Heard, chairman, until September 24, for the erection of a new church.

Reports state that Mrs. John A. Morris, St. Charles Hotel, will build a dwelling 56x85 feet, to cost about $75,000, after plans and specifications by the De Buys-Levy Company.

Bids will shortly be asked for court-house to be erected jointly by the city and State, for which plans by P. Thornton Marye, F. W. and A. T. Brown, associate architects, Atlanta, Ga., were reported July 26 as adopted by the Commission. The plans provide for a modern fireproof building, four stories, of white glazed terra-cotta. About $1,000,000 will be expended for site, building, etc.

The Board of Trustees of the First Baptist Church of New Orleans, ex-Governor W. W. Heard, chairman, will receive sealed proposals for the erection of their new church at St. Charles Avenue and Delachaise Street, up to 12 o'clock noon on September 24, 1906, in accordance with plans and specifications prepared by Andrew J. Bryan, architect, 708 Hennen Building, New Orleans, La.

The erection of a $150,000 building for Loyola College is being considered by the Marquette Association, B. A. Oxnard, president. Father Albert Biever, S.J., is president of the college.

Toledano & Wogan are preparing plans for proposed hotel for the La Baronne Hotel Realty Company, 708 Union Street; nine stories, 57x200 feet; steel, concrete and brick; cost, $650,000.

An ordinance will be introduced at the next meeting of the City Council authorizing the expenditure of $200,000 for the erection of an annex to the City-hall. Address the Mayor.

NEW YORK, N. Y.—Plans are now ready for the ten-story store and loft building, 90 x103.5 feet, which the Keller Smith Company, 447 East Sixty-eighth Street, will build on the south side of Fifteenth Street, 265.8 feet east of Eighth Avenue, at a cost of $200,000. Brick and ashlar limestone exterior, steam heat, tar and gravel roof, etc. Peter Keller, 1273 Avenue A, is architect.

Plans are now ready for figures on separate contracts for the ten-story fireproof office building, 40x100 feet, which Frederick Zobel, 114 East Twenty-eighth Street, will erect at Nos. 122 to 124 East Twenty-eighth Street.

Plans are ready by Hoppin, Koen & Huntington, 244 Fifth Avenue, for a chapel to be erected at the northwest corner of Woodlawn Road and Bainbridge Avenue, one-story, 76x30 feet, brick, stone, tin roof, electric wiring, etc. Bishop David H. Greer, 7 Gramercy Park, has the matter in charge.

Plans have been prepared by Architects Thain & Thain, 4 East Forty-second Street, for the erection of two flat buildings on the north side of One Hundred and Forty-first Street, 100 feet west of Broadway, for the Levy & Weinstein Realty & Construction Company, 501 West One Hundred and Thirty-eighth Street. Cost, $220,000.

Plans have been filed for the erection of a seven-story hospital at Livingston Place and Fifteenth Street, for New York Infirmary for Women and Children; cost, $100,000. Renwick, Aspinwall & Tucker, architects.

Chas. McCaul, 10 West Eleventh Street, has been granted a permit to erect three-story telephone exchange, 64x102, Seventeenth and Diamond Streets, for Bell Telephone Company; cost, $135,000. John T. Windrim, 1011 Walnut Street, is the architect.

It is stated that plans have been filed for three stories to be added to the car shops and storage house of the New York City Railway Company, at Forty-ninth Street and Eighth Avenue, at a cost of $50,000.

The Seamen's Church Institute of this city, it is stated, will erect a seamen's building at a cost of $1,000,000. It is to be a ten-story building.

Bids are asked until 11 A.M., September 17, by the Superintendent of School Buildings for ten school buildings and general alterations. C. B. J. Snyder is Superintendent of School Buildings.

Plans have been filed with the Building Superintendent for a new four-story school for the Talmud Torah Synagogue on One Hundred and Eleventh Street, west of Lex-

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ington Avenue. The building is to cost $125,000.

Niagara Falls, N. Y.—The contract for the office building to be erected at Falls and First Streets has been awarded to Braas Bros. It is to be a six-story brick and steel building, and 45x132 feet. J. R. White is architect. Estimated cost, $100,000.

Norfolk, Va.—E. Tatterson, of Norfolk, it is stated, has secured the contract to erect the Union Square Hotel at Granby and Freemason Streets. Probable cost, $200,000. John Kevan Peebles, of Norfolk, is the architect.

The Norfolk Baths Corporation has organized to erect a modern Turkish bath establishment. Structure will be of brick and stone, five stories high, containing about fifty rooms; upper floors to be used for baths and ground floor for stores or offices; cost of construction and equipment about $100,000; fireproof construction; heating plant not decided; electric lighting fixtures; Breese & Mitchell, architects; Dr. Livius Lankford, president.

The contract has been awarded by the Board of Governors of the Jamestown Exposition to J. W. Davis, of Newport News, Va., for the erection of the Educational and Historic Arts Building, at a cost of $86,000.

Capt. Spencer Crosby, with his corps of engineers, has arrived, to take charge of the $400,000 government pier, to be erected at the Jamestown Exposition.

North Attleboro, Mass.—The building for the H. F. Barrowes Co. of North Attleboro, to be used as a jewelry manufacturing building, will probably be of reinforced concrete, and plans will be ready for figures the middle of September. Newton C. Bond of Providence, R. I., is the architect.

North Tonawanda, N. Y.—The Lehigh Valley Railroad Company will build a new station and sheds at North Tonawanda from plans prepared in the engineering department of the company. The station will be one story high, of brick, and will measure 104x36 feet.

North Wildwood, N. J.—Henry L. Reinhold, Jr., 1004 Chestnut Street, Philadelphia, Pa., is preparing plans for a 4-story brick hotel at North Wildwood, for the North Wildwood Land Co. Cost, $200,000.

Oakland, Cal.—A building is to be erected by the Odd Fellows of this city. It is to be a nine-story concrete and stone building. Estimated cost, $250,000. Samuel B. Zimmer, 578 East Twenty-second Street, is architect.

Paris, Ark.—The erection of a new court-house is reported under consideration.

Pensacola, Fla.—Chas. H. Turner, of Pensacola, it is stated, has secured the contract to erect the City-hall, at a cost of about $65,000.

Philadelphia, Pa.—Bids will be received by E. Hubschman, Front Street and Fairmont Avenue, for the erection of a five-story factory building, to be located at Orianna and Willow Streets. Brick and concrete construction.

Plans are being prepared for a factory building to be erected at Twenty-sixth and Parrish Streets, by Finnessey & Kabler, Twenty-seventh and Brown Streets. It is to be a four-story brick and reinforced-concrete building, 100x100 feet.

Pittsburgh, Pa.—Reports state that within three months work of construction upon the G. A. R. Memorial Hall, at an expense of $1,250,000, including cost of site at Grant Boulevard and Bayard Street, will be under way. The selection of plans will be by competition.

The Pittsburgh Brewing Company will build a $200,000 brick addition to the Iron City plant, to be erected on a vacant lot, 241x100 feet, adjoining the present brewery building. The lot fronts 241 feet on Sassafras Street and 100 feet on Thirty-sixth Street.

Reports state that the contract for erecting the machine building at the Carnegie Technical Schools at Schenley Park has been awarded to Edwin Gilbert & Co. It is to be a three-story building, 90x192 feet. Estimated cost, $125,000.

The United States Steel Corporation, it is stated, has appropriated $1,000,000 for an addition at the Donara Works, formerly owned by the Union Steel Company. It is to be a billet plant, 286 feet long. It will be electrically operated.

A building to cost $75,000 will be erected on the lot at the southwest corner of Butler and Forty-fifth Streets, which the Lawrenceville Branch of the Young Men's Christian Association recently bought.

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PORTLAND, ME.—It is reported that Congress has appropriated $75,000 for a new post-office at Auburn.

POUGHKEEPSIE, N. Y.—The Poughkeepsie Trust Company has awarded the contract for the erection of their new five-story building to William Burnett, 320 Fifth Avenue, New York City. The building will cost $300,000.

RAHWAY, N. J.—Geo. E. Poole, of Trenton, Assistant Commissioner of Charities, writes that the contract for erecting an addition to State Reformatory at Rahway has been awarded to Thos. H. Prior & Sons, of Trenton, for $261,900.

RALEIGH, N. C.—It is stated that a seven-story Masonic Temple is to be erected here at a cost of $150,000.

The North Carolina Grand Lodge is to erect a new Temple on Fayetteville Street. Estimated cost, $100,000. Francis D. Wilson is Grand Master.

REDWOOD CITY, CAL.—The bond election recently held in this county to raise $150,000 to rebuild and furnish the County Courthouse carried by a large majority.

RICHMOND, VA.—Architect Chas. K. Bryant has prepared plans for the proposed colored almshouse building to cost not over $50,000.

Carpenter, Blair & Gould have completed plans for proposed Confederate Memorial Hall and Auditorium; to be of brick or concrete construction, and the auditorium to have a seating capacity of 2,500.

ROCHESTER, N. H.—The plans submitted by George G. Adams, of Lawrence, Mass., for a new City-hall, stone and brick, cost not to exceed $65,000, have been accepted.

SACRAMENTO, CAL.—The Alaska Commercial Company will erect a steel office building at California and Sansome Streets. Estimated cost, $500,000.

ST. PAUL, MINN.—It is reported that the Bowlin Liquor Company, 381 Jackson Street, will erect a business block on property recently purchased at 253 East Seventh Street. The building will be of brick and stone construction, five stories high and fireproof throughout. The estimated cost is $80,000.

Architects Reed & Stem, 601 Endicott Building, are at work on plans for a manufacturing plant for the Northern Malleable Iron Company, Wells and Forrest Streets. Brick, concrete and steel construction, iron roof, two stories high, 112x900 feet. Estimated cost, $120,000.

ST. LOUIS, MO.—A building for the Third National Bank is to be erected at Broadway and Olive Street. It is to be an 18-story steel, brick and granite building. Estimated cost, $2,000,000. Eames & Young, Chestnut and Seventh Streets, are the architects.

Plans are being prepared for a commercial building to be erected on Chestnut Street, near Eighteenth Street. It is to be an eight-story building, 90x109 feet. Estimated cost, $125,000. It will be erected under the management of Loewenstein Bros.

The Murch Bros. Construction Company, Odd Fellows Building, it is stated, has secured the contract to erect a $150,000 addition to the shoe factory of the Hamilton Brown Shoe Company, at Eighth, Ninth, Carroll and Marion Streets.

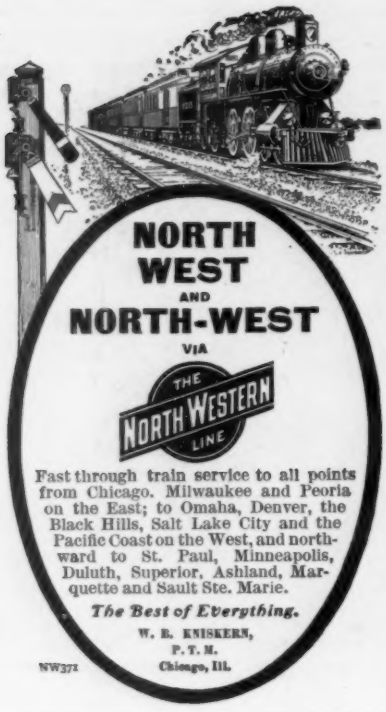
Masonic Sanitarium Association, William Sessinghaus, president, has received plans for the erection of proposed sanitarium, 64x104 feet; five stories; fireproof construction; doors and window-sills to be covered with sheet copper; cost, $100,000.

SALT LAKE CITY, UTAH.—Architect Henry J. Schlacks, Chicago, Ill., is preparing plans for a railway depot to be built at Salt Lake City for the Denver & Rio Grande Railway Company. It will cover 105x340 feet, be two-story, excepting the central part, containing the waiting-room, which will be 75 feet high, be of fireproof steel and concrete construction, with exterior of stone and concrete foundation, have metal roof, a large amount of marble and mosaic work, steam heat, electric light, all the latest improvements, and will cost, including platform and subways, $600,000. Mr. Schlacks expects to have the plans ready in about six weeks, and will then receive bids, but not before.

The plans by Architect T. D. Boal, of Denver, Col., were selected for the addition to the Alta Club-house in this city. Estimated cost, $50,000.

SAN ANTONIO, TEX.—D. E. Hirshfield and associates will erect a sanitarium at a cost of $200,000.

Charles M. Reeves, of St. Louis, Mo., representing capitalists of that city, will erect a modern hotel building.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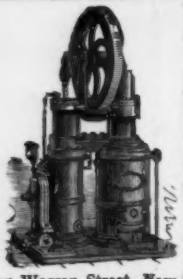

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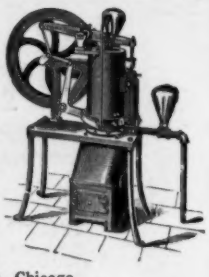

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Flood Walker, architect, is preparing plans and specifications for erection of apartment-house for local capitalists; structure to be three stories high; construction to begin as soon as plans are prepared.

Alfred Giles, Soledad Block, has prepared plans for alterations to the Menger Hotel; cost, about $125,000.

The Collins-Gunther Manufacturing Company, of San Antonio, Tex., has prepared plans for a foundry and machine shops, new office quarters and salesroom, to be erected in connection with its plant. The total cost will be about $50,000.

San Diego, Cal.—Clements, Stannard & Blachman, architects, are preparing plans for the Realty & Mercantile Co., of Los Angeles, for the erection of the Steele Building, on Sixth and H Streets. It is to be a six-story building, 100x100 feet. Estimated cost, $100,000.

The Board of Supervisors contemplates building a new court-house, which is to cost $500,000.

The plans of F. E. Allen, architect, Pasadena, for the new City-Hall Building in this city have been selected, and the architect instructed to prepare the working drawings. The building is to cost $40,000.

San Francisco, Cal.—J. Parker, W. Litinz, Sr., is to re-erect the Starr King Building. The building is to be eight stories high, and is to cost about $400,000.

Henry Schulze is the architect for the building of the Bank of San Jose, which will cost $100,000. It will be five stories high.

William Helbing will erect a four-story concrete building, to cost $150,000, on the site of the old Manhattan Hotel.

The United Railroads is considering plans for a twelve-story office building, to be erected at Market and Valencia Streets. The building will cost about $350,000.

Plans are about prepared, according to reports, for a seven-story and basement reinforced-concrete store and apartment house, to be erected at Montgomery and Sacramento Streets by R. V. Kazian and William Mooser, at a cost of $125,000.

Dr. Julius Rosenstirn, it is stated, will erect on the site of the former Hotel Granada, at Sutter and Hyde Streets, a seven-story hotel, to be known as Hotel Grenada and to cost $200,000.

O. D. Baldwin, it is stated, intends erecting a five-story brick and steel store and apartment house at Polk and Posts Streets, to cost $75,000.

An eight-story building to be occupied by the largest printing and lithographing establishment west of Chicago will be erected by the H. S. Crocker Company on Brannan Street. It will be of brick and fireproof construction and cost about $150,000.

The Mark Sheldon Company is to erect a seven-story building at Market and First Streets. G. B. McDougall, 330 Pine Street, is architect. Estimated cost, $300,000.

A. Aronson and the Central Realty Company will erect a six-story brick and steel building on Sutter Street, at a cost of $150,000.

Plans are being prepared by Mooser & Milwain, 819 Market Street, for a seven-story building to be erected at Montgomery and Sacramento Streets, at a cost of $125,000.

C. A. Meussdorffer, architect, has prepared plans for a four-story office building to be erected at Van Ness Avenue and Fulton Street. It is to be erected by the Selig Estate, at a cost of $82,000.

Plans have been prepared by Shea & Shea, architects, Post Street, for a temporary City-hall, to be located at Mission and Eighth Streets, at a cost of $150,000.

Santa Cruz, Cal.—Fred. Swanton, architect, has prepared plans for a new Casino and bath-house and theatre. It is estimated that $235,000 will be spent for the buildings, pumping plant and cold storage.

Seattle, Wash.—It is reported that the estimated cost of a City-hall of reinforced-concrete construction is $208,000 for three-story, and $258,300 for five-story.

Sewells Point, Va.—A theatre will be built here by the De Long Amusement Company, of Norfolk, Va., at a cost of $60,000. L. S. De Long will be in charge.

Shreveport, La.—It is reported that a City-hall will be erected at a cost of $100,000. Address the Mayor for information.

South Bend, Ind.—It is reported that H. G. Christman & Co. have been awarded the contract for the construction of the Y. M. C. A. building in this city. The consideration is $250,000. The building is a gift of the Studebakers.

Spokane, Wash.—A permit has been granted to P. L. Peterson, 2230 Bridge Avenue, for the erection of a $100,000 brick building on Washington Street.

J. W. Oakes and M. C. Dunn have bought a site on the same street, several blocks each, and will erect a warehouse to cost $65,000. Both structures are to be ready in October.

Uniontown, Pa.—It is reported that the Building Committee has been directed to receive competitive plans from local architects for a borough municipal building.

Vancouver, B. C.—A court-house is to be erected at once in this city. It is to be a two-story building of pressed stone. Estimated cost, between $200,000 and $300,000. F. M. Rattenbury, of Victoria, is architect.

Waco, Tex.—A tabernacle which will seat at least 4,000 persons will be built here for the George Stuart revival. This was determined on at a meeting of the Board of Stewards of the Fifth Street Methodist Church, of which Rev. Jerome Duncan is pastor.

Warrenton, N. C.—The County Commissioners for Warren County, N. C., invite sealed proposals for the erection and completion of a new county court-house at this place, agreeable to the plans and specifications prepared by Frank P. Milburn & Co., architects, of Washington, D. C. Said plans and specifications will be on file at the Register of Deeds' office at Warrenton, N. C., and at the architects' office. All bids are to be sealed and delivered to the Register of Deeds on or before 12 o'clock noon, September 25.

Washington, D. C.—The Baltimore & Ohio Railroad Company contemplates the

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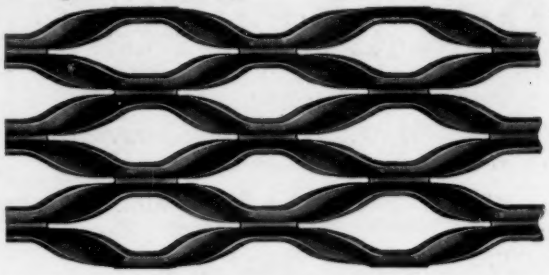

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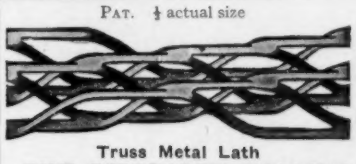

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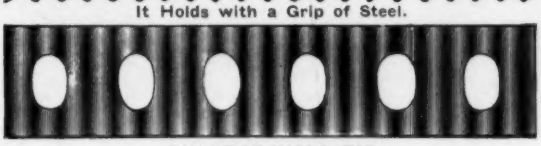

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erection of two 25-engine roundhouses and repair shops, north of New York Avenue. The cost will be about $400,000.

A permit has been issued to Hennen Jennings for a four-story brick dwelling at 2221 Massachusetts Avenue, Northwest. Architect, George O. Totten; estimated cost, $56,000.

A new home, to cost about $150,000, is to be erected by Washington Lodge, No. 15, of the Benevolent and Protective Order of Elks, on the north side of H Street, between Ninth and Tenth Streets, Northwest.

Plans are being prepared by Wyeth & Cresson, architects, 1517 H Street, Northwest, Washington, for a residence for John Hays Hammond. It will be four stories, brick and stone, and cost $150,000.

The Board of Charities has submitted a plan to the Commissioners of the District of Columbia, prepared by its secretary, George L. Wilson and Dr. George M. Kober, for the erection of proposed hospital for indigent tuberculosis cases. An appropriation of $100,000 is available for the construction of this building.

Bids will be received by Capt. A. W. Butt, Q.M., Washington, D. C., until October 11 for constructing plumbing, drainage, gas-piping, heating and ventilation, electric conduits and wiring system, electric elevator plant and vacuum cleaning system of building, for the Walter Reed Army General Hospital, Army Hospital Grounds, Washington.

Representative George F. Huff, of Pennsylvania, 1325 Sixteenth Street, N. W., has commissioned Horace Trumbauer, architect, Land Title Building, Philadelphia, Pa., to prepare plans and specifications for dwelling to be erected at New Hampshire Avenue and Q Street, N. W.; four stories, 56x67 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; cost, about $100,000. Bids on construction will soon be taken.

Sealed proposals, in duplicate, will be received at the Department until 2 o'clock P.M., Thursday, September 20, 1906, for furnishing and installing fireproof doors and for fireproofing stairways at the Government Hospital for the Insane, Washington, D. C., in accordance with the drawings seen on application at this Department. A certified check equal to 2 per cent. of the amount of the bid must accompany each proposal. The right is reserved to reject any or all bids, to accept one part and reject the other and to waive technical defects as the interests of the service may require. Forms of proposal may be had on application at the Department. Thos. Ryan, Acting Secretary.

The Carnegie Institution, Robert S. Woodward, president, Bond Building, New York Avenue and Fourteenth Street, N. W., has purchased lot at Sixteenth and P Streets, N. W., and will erect administration building on the site, to cost about $200,000.

B. Stanley Simmons, architect, 931 F Street, N. W., Washington, is ready for bids for the construction of a store and office building at 1331-3 G Street, N. W., for C. E. Foster. The building will be of brick and stone, three stories high, 45x100 feet.

WATERTOWN, N. Y.—The erection of a graded school in the First Ward, to cost $50,000, is reported under consideration.

WAYCROSS, GA.—The Waycross Hotel Company, consisting of Geo. R. Youmans, L. A. Wilson, G. W. Deen, and J. M. Bell, will erect a hotel and office building here, to cost about $100,000. H. J. Klutho, 18-20 Underman Building, Jacksonville, Fla., is architect.

WEISER, IDAHO.—W. A. Pleasants contemplates the erection of a $100,000 hotel in this city in the near future.

WEST CHESTER, PA.—Bids are asked by the First National Bank for the erection of a bank and office building. It is to be a six-story, brick and steel building, of fireproof construction. Estimated cost, $100,000.

WHITMAN, MASS.—A Town-hall is to be erected here, at a cost of $100,000. It is to be of brick and granite, 101x154 feet. Aaron H. Gould, 17 Milk Street, Boston, Mass., is architect.

WILKES-BARRE, PA.—Guy King, of Philadelphia, and R. V. Norris, engineer, it is stated, have prepared plans for a reinforced-concrete passenger station and railway terminal at Wilkes-Barre for the Wilkes-Barre & Hazleton third rail system. The buliding is to be three stories, 60x90 feet. The cost reported to be $5,000,000.

WINCHESTER, VA.—The trustees of the Handley fund, it is reported, will soon award the contract for erecting the Handley Memorial Library at Winchester, at a cost of $250,000.

WINNIPEG, MAN.—It is stated that plans are about completed for the seven-story union station, which is to be erected at Broadway and Water Street for the Canadian Northern Railway (W. A. Brown, General Superintendent, Winnipeg), and the Grand Trunk Pacific Railroad (B. B. Kelliher, Chairman Engineers, Montreal, Que.).

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ARTIFICIAL MARBLE.
Mycenian Marble Co., New York.

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American Asphaltum & Rubber Co., Chicago
Neuchatel Asphalt Co., New York.

ASPHALT ROOFING.
American Asphaltum & Rubber Co., Chicago
Barber Asphalt Paving Co., Philadelphia

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Moss, Chas E., Boston.
Spaulding Print Paper Co., Boston.

BLUE PRINT MACHINES (Electric).
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Gorham Mfg. Co., New York.
Jackson, Wm. H., Co., New York.
Richey, Browne & Donald, Maspeth, L. I., New York City.
Winslow Bros. Co., The, Chicago, Ill.

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American School of Correspondence, Chicago.

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Pitt Balance Door Co., New York.

DOORS (Fireproof Metal-covered).
Fire Proof Door Co., Minneapolis, Minn.

DOORS (Steel Rolling).
Kinnear Mfg. Co., The, Columbus, O.

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Favor, Ruhl & Co., New York.
Soltmann, E. G., New York.

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Prometheus Electric Co., New York.

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Otis Elevator Co., New York.

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Rider-Ericsson Engine Co., New York.

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Sturtevant Co., B. F., Boston.

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Cummings Filter Co., Pittsburgh, Pa.

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Expanded Metal and Corrugated Bar Co., St. Louis.
Imperial Expanded Metal Co., Chicago.
National Fireproofing Co., Pittsburgh, Pa.
Trussed Concrete Steel Co., Detroit.
Turner Construction Co., New York.
"Unit" Concrete Steel Frame Co., Philadelphia, Pa.

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Hayes, Geo., New York.

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Kinnear Mfg. Co., The, Columbus, O

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Butcher Polish Co., Boston.

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Hitchings & Co., New York.
Smith Co., H. B., New York.

INSULATED WIRE.
The Okonite Co. (Ltd.), N. Y.

INTERIOR DECORATION.
Huber, H. F. & Co., New York.

INTERLOCKING RUBBER TILING.
See Tiles (Interlocking Rubber).

IRONWORK (Ornamental).
Jackson, Wm. H., Co., New York.
W. H. Mullins Co., Salem, Ohio.
Pitt, Wm. R., Iron Works, New York.
Richey, Browne & Donald, Maspeth, L. I., New York City.
Winslow Bros. Co., The, Chicago, Ill.

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Troy Laundry Machinery Co., Troy, N. Y.

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Cutler Mfg. Co., Rochester, N. Y.

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The Robert C. Fisher Co., New York.

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American Air Cleaning Co., Milwaukee, Wis.

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The Berger Mfg. Co., Canton, Ohio.
W. H. Mullins Co., Salem, O.
See also Fireproofing.

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American Rolling Mill Co., Middletown, O.
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Truss Metal Lath Co., New York.

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National Lead Co., New York.
New Jersey Zinc Co., New York.

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J. W. Taylor, Chicago, Ill.

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Samuel H. French & Co., Phila., Pa.

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Woolf, L., Mfg. Co., Chicago.

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Kewanee Water Supply Co., Kewanee, Ill.

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American Luxfer Prism Co., Chicago.
Holophane Glass Co., New York.

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Rider-Ericsson Engine Co., New York.

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Blome, R. S., Co., Chicago.
Keasbey & Mattison Co., Ambler, Pa.
See also Asphalt Roofing.

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Samson Cordage Works, Boston.
Silver Lake Co., Boston.

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Lawrence Scientific School, Harvard University, Cambridge, Mass.
Massachusetts Institute of Technology, Boston.
Ohio State University, Columbus, O.
Society of Beaux-Arts Architects The, New York.
University of Michigan, Ann Arbor.
University of Pennsylvania, Philadelphia, Pa.
Washington University School of Engineering and Architecture, St. Louis, Mo.

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Berger Mfg. Co., Canton, O.
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